



# PROGRAMME & ABSTRACT BOOK

The Asian Conference on Education (ACE2024)

November 25-29, 2024 | Tokyo, Japan, and Online

Organised by the International Academic Forum (IAFOR) in partnership with the IAFOR Research Centre at the Osaka School of International Public Policy (OSIPP) at Osaka University, Japan, and IAFOR's Global Partners.

iafor

ISSN: 2433-7544 (Online) ISSN: 2433-7587 (Print)



[iafor.org/about/partners](http://iafor.org/about/partners)

# IAFOR Global Partners



VirginiaTech



MICHIGAN STATE  
UNIVERSITY



University of Belgrade







**/iaforjapan**



**@iafor.official**



**@iafor (#iafor)**



**iafor.org**



# International Academic Board

Dr Joseph Haldane, IAFOR and Osaka University, Japan, & University College London, United Kingdom  
Professor Jun Arima, President, IAFOR & University of Tokyo, Japan  
Professor Anne Boddington, Executive Vice-President and Provost, IAFOR & Middlesex University, United Kingdom  
Professor Barbara Lockee, Virginia Tech, United States  
Professor Donald E. Hall, Binghamton University, United States  
Dr James W. McNally, University of Michigan, United States & NACDA Program on Aging  
Professor Grant Black, Chuo University, Japan  
Professor Dexter Da Silva, Keisen University, Japan  
Professor Baden Offord, Centre for Human Rights Education, Curtin University, Australia & Cultural Studies Association of Australasia  
Professor Frank S. Ravitch, Michigan State University College of Law, United States  
Professor William Baber, Kyoto University, Japan  
Dr Virgil Hawkins, Osaka University, Japan

## ACE2024 Conference Programme Committee

Distinguished Professor Tien-Hui Chiang, Zhengzhou University, China  
Dr Joseph Haldane, IAFOR and Osaka University, Japan, & University College London, United Kingdom (Conference Co-chair)  
Susie Kung, Manukau Institute of Technology, New Zealand  
Professor May Sok Mui Lim, Singapore Institute of Technology, Singapore  
Dr Tzu-Bin Lin, National Taiwan Normal University, Taiwan  
Professor Barbara Lockee, Virginia Tech, United States  
Dr Leandro Loyola, Conestoga College Institute of Technology and Applied Learning, Canada  
Professor José McClanahan, Creighton University, United States  
Dr Sean McMinn, Hong Kong University of Science and Technology, Hong Kong  
Dr Murielle El Hajj Nahas, Lusail University, Qatar  
Dr Justin Sanders, Woven by Toyota, Japan  
Dr Tati D. Wardi, Universitas Islam Internasional Indonesia (UIII), Indonesia  
Dr Aki Yamada, Tamagawa University, Japan



# Letter of Welcome



Welcome to the 16th Asian Conference on Education!

Welcome to Japan, and welcome to the wonderful capital city of Tokyo at the heart of the world's largest bustling metropolis, with more than 38 million people. Our conference is in the very heart of the city, in an oasis of quiet near the imperial palace, where we will welcome some 650 delegates from more than 40 different countries.

The Asian Conference on Education (ACE) is IAFOR's longest running and flagship conference in Asia. From 2009 until 2014, the conference was held in Osaka, before moving to Kobe from 2015 to 2017, and then finally to Tokyo, where we have been since 2018.

This conference is a chance for us to welcome the largest number of people to our home, Japan, where our headquarters and research centre are also based; in Nagoya, and Osaka respectively.

Since that first conference in Osaka, IAFOR has welcomed more than 50,000 attendees to its conferences, as we have expanded to host events on three continents and worked with universities and scholars throughout the world. Our mission as an organisation is one dedicated to encouraging interdisciplinary discussion, facilitating intercultural awareness, and promoting international exchange, principally through educational interaction and academic research. That mission is one that our membership and our conference attendees share, as we live it together through our conferences, making friends and forging partnerships across boundaries of nation, culture, and discipline.

I would like to thank the International Academic Board, the Conference Programme Committee, the Review Committee, and the invited speakers for their time, dedication, and energy. May I also take this opportunity to thank you, from wherever you have come in the world, for taking the time, and making the effort. We have an enormous amount to learn from each other, and your active participation throughout the conference will ensure you make the most of what promises to be a great event.

An IAFOR conference is an extraordinary place to meet people from all over the world, and to engage in the comparative and contrastive intellectual and academic space it provides. Whether you are presenting for the first time or a seasoned academic, we expect you to engage in the collegial, collaborative, and open spirit that is the hallmark of our organisation.

I look forward to a great week in Tokyo, and to meeting you all.

A handwritten signature in blue ink, reading "Joseph Haldane". The signature is fluid and cursive, with a long horizontal line extending from the end of the name.

**Dr Joseph Haldane**

Chairman & CEO, The International Academic Forum (IAFOR)

Professor, European Center for Peace and Development (ECPD), United Nations University for Peace

Guest Professor, Osaka School of International Public Policy, Osaka University, Japan

Visiting Professor, Doshisha University, Japan

Visiting Professor, The University of Belgrade, Serbia

Honorary Professor, University College London (UCL), United Kingdom

Member, Expert Network, World Economic Forum





## Become an IAFOR Member

IAFOR provides an enriching personal and professional environment for academics and scholars of all ages and backgrounds to exchange and contribute to interdisciplinary and intercultural dialogue that informs and is informed by their own cultural and disciplinary background and experiences. We are able to do this thanks to our extraordinary network of individuals and institutions around the world who support our work and help shape our events globally. We particularly emphasise the nurturing and support for emerging academics from an array of different backgrounds, and aim to provide opportunities for them to seek advice, support and guidance, as well as offering mid-career and more established academics opportunities to forge working relationships beyond their traditional disciplinary ambitions.

In our current world where division and strife are often reinforced and played out in national and local contexts, and political posturing frequently seeks to ostracise and demonise, IAFOR is committed to working across cultural and national borders, and to work to bring people together through dialogue. We believe that mature human interaction and academic and cultural exchange are essential to offering positive versions of the future, where cooperation happens between individuals and institutions who share a commitment to listen, to reach out and bridge divides, and to contribute to good global citizenship, and to making the world a better place.

By becoming a member of IAFOR, you will become part of an extraordinary network and a stakeholder in shaping the IAFOR mission and facilitating international exchange, encouraging intercultural awareness, and promoting interdisciplinary discussion in the hope and expectation of generating and sharing new knowledge. Join us now in this growing global organisation, and help make a difference today.

To learn more about IAFOR membership, please visit:

**[iafor.org/membership](https://iafor.org/membership)**



# ACE2024 Key Statistics

Date of creation: October 12, 2024

international  
intercultural  
interdisciplinary

iafor

# 655 DELEGATES FROM 46 COUNTRIES



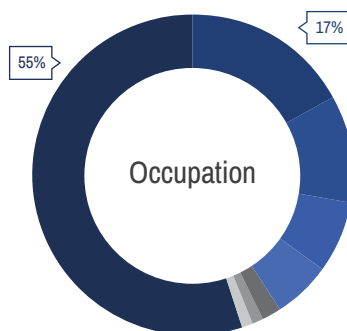
**463**  
Onsite  
Presentations



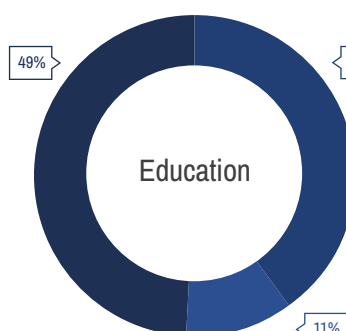
**125**  
Online  
Presentations



**416**  
Institutions and  
Organisations



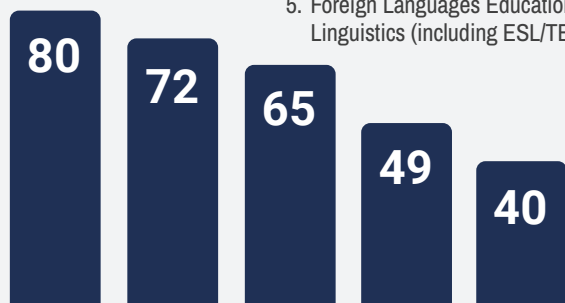
55% University Faculty  
17% Doctoral Student  
11% Postgraduate Student  
7% Public Sector/Practitioner  
6% Other  
2% Postdoctoral Fellow/Instructor  
1% Independent Scholar  
1% Private Sector



49% Doctoral Degree  
40% Masters Degree  
11% Bachelors Degree

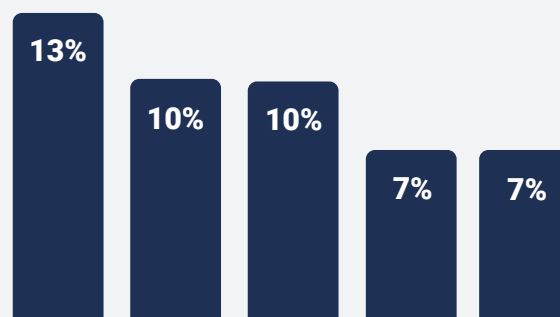
## Top Streams

1. Teaching Experiences, Pedagogy, Practice & Praxis (80)
2. Learning Experiences, Student Learning & Learner Diversity (72)
3. Design, Implementation & Assessment of Innovative Technologies in Education (65)
4. Higher Education (49)
5. Foreign Languages Education & Applied Linguistics (including ESL/TESL/TEFL) (40)



## Top Countries by Delegate Attendance

1. Taiwan (13%)
2. Philippines (10%)
3. Thailand (10%)
4. Japan (7%)
5. Indonesia (7%)



**588**

Total  
Presentations



**261**

Hours of  
Content

## Multiple Authored vs. Single Authored Submissions

61%

39%

international | intercultural | interdisciplinary

# Inspiring Global Collaborations

Date of creation: September 29, 2024



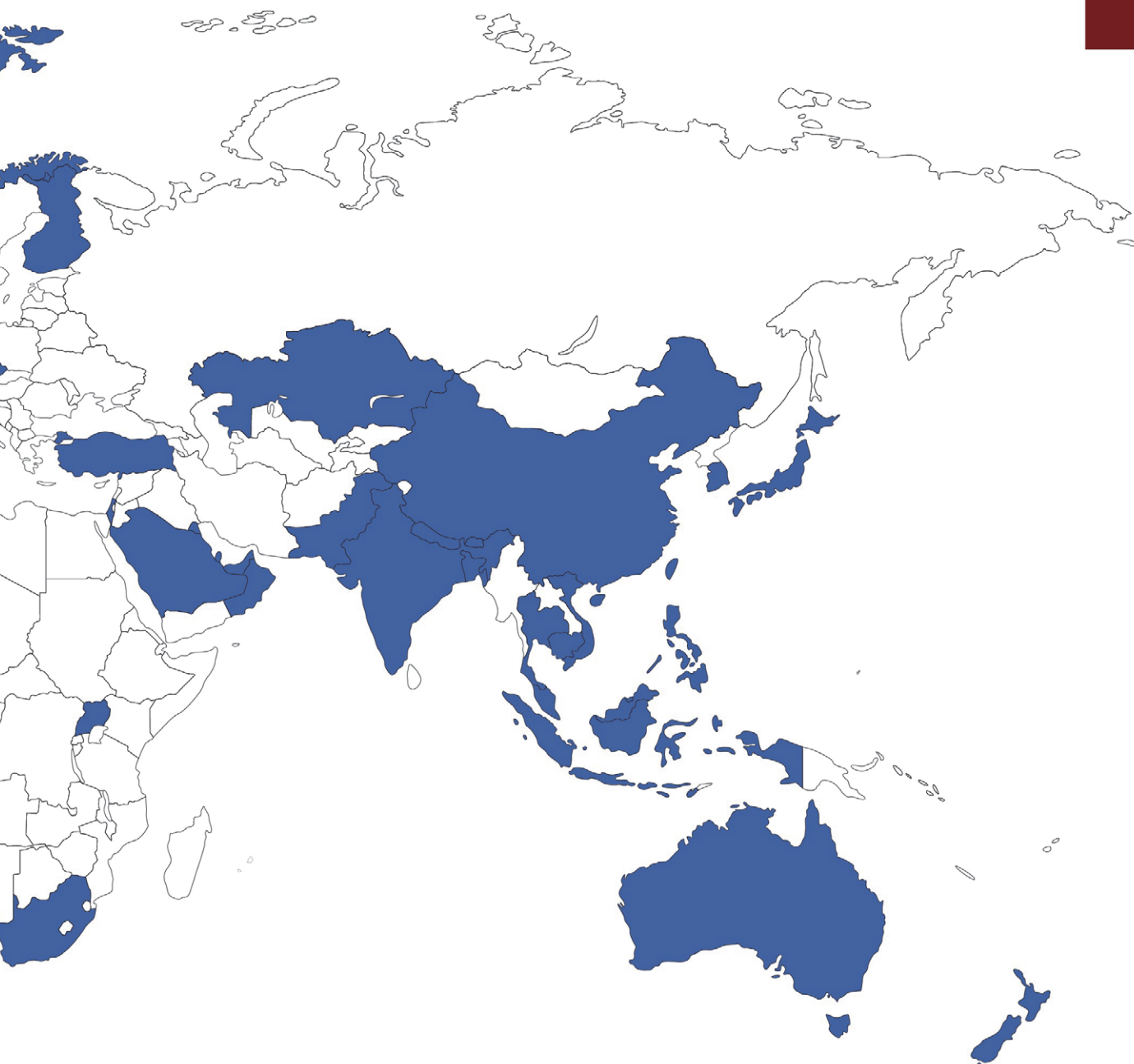
## international intercultural interdisciplinary

One of the greatest strengths of IAFOR’s international conferences is their international and intercultural diversity.

ACE2024 has attracted 650+ delegates from 46 countries

Taiwan	85	Hong Kong	20	South Africa	6
Philippines	67	South Korea	12	Kuwait	5
Thailand	66	Canada	11	Portugal	5
Japan	47	India	10	Saudi Arabia	5
Indonesia	46	Spain	10	Israel	4
Singapore	46	Vietnam	10	Norway	4
Malaysia	41	United Arab Emirates	9	Oman	4
United States	35	United Kingdom	9	Bangladesh	3
Australia	27	Kazakhstan	8	Cambodia	3
China	23	Germany	6	Colombia	3





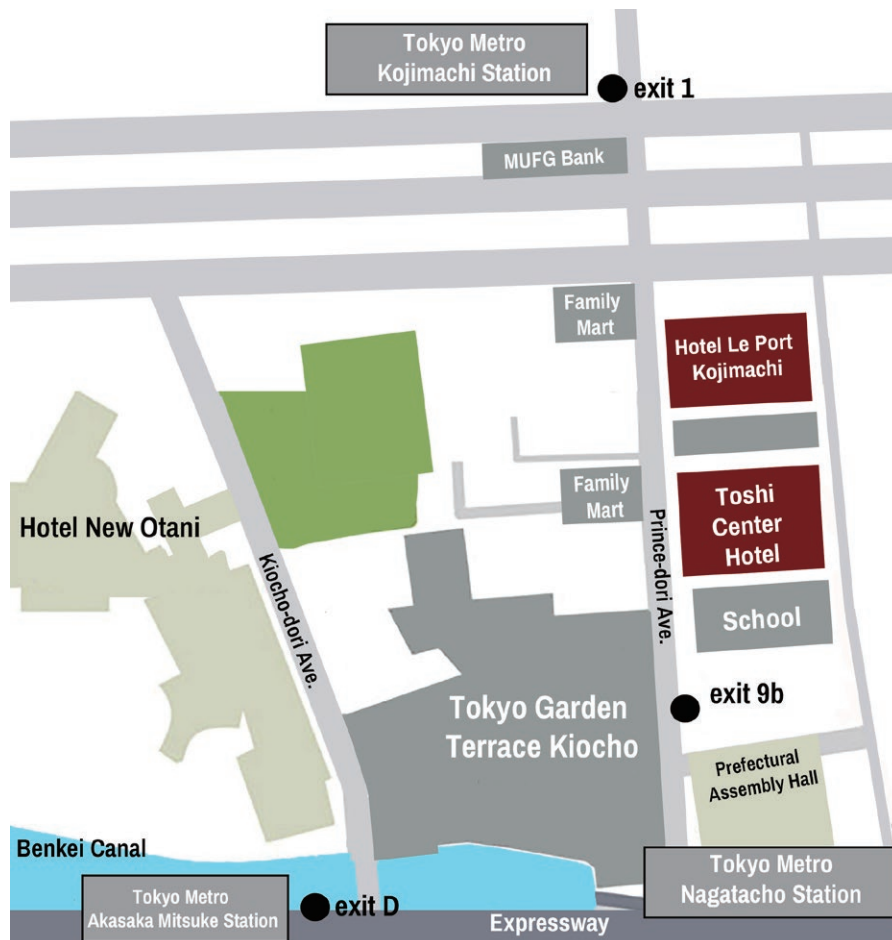
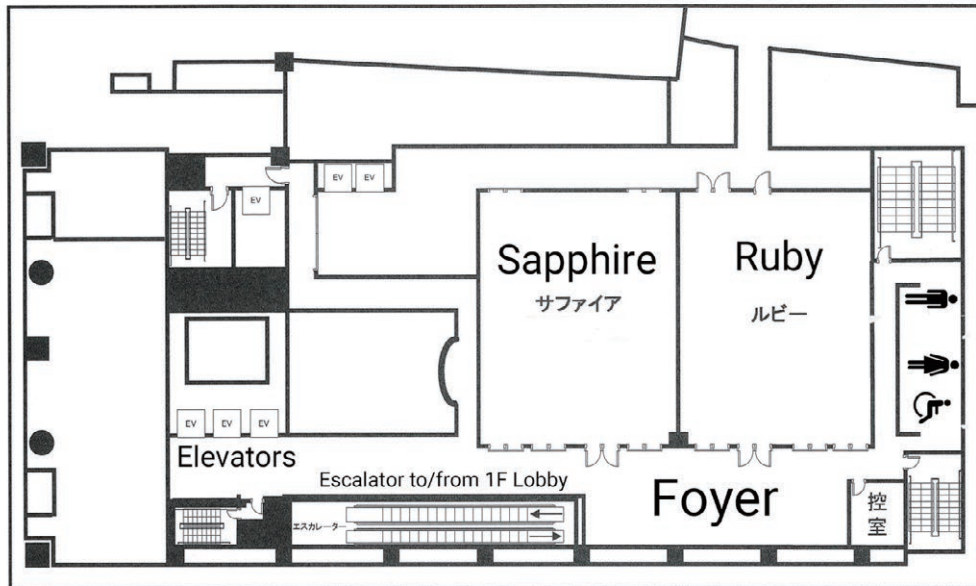
Czech Republic	3	Macau	1	<b>Total Attendees</b>	655
Mexico	3	Nepal	1	<b>Total Onsite Presentations</b>	463
Turkey	3	Nigeria	1	<b>Total Online Presentations</b>	125
Brunei	2	Pakistan	1	<b>Total Countries</b>	46
Finland	2	Qatar	1		
New Zealand	2	Uganda	1		
Bhutan	1				
Cayman Islands	1				
Ghana	1				
Ireland	1				

Conference Venue: Sunday, November 24

# Hotel Le Port Kojimachi

Address: Hirakawacho 2-4-3, Chiyoda-ku, Tokyo

2F

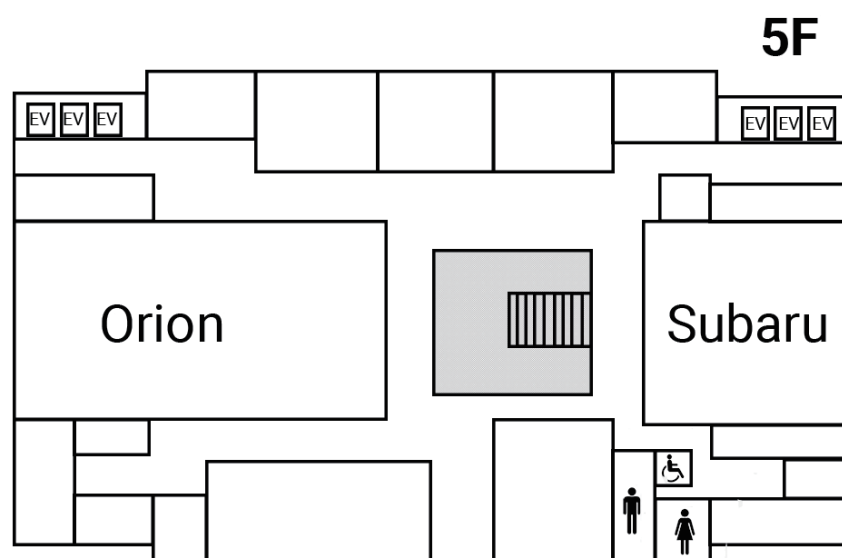
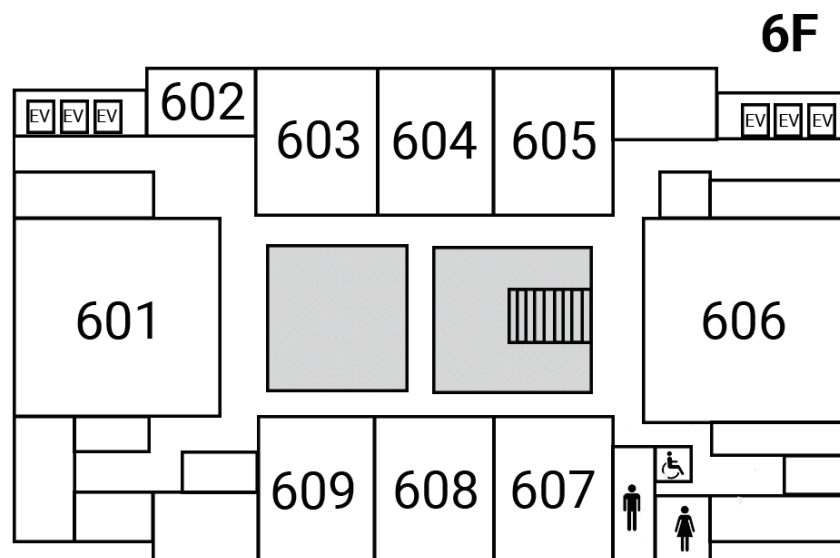
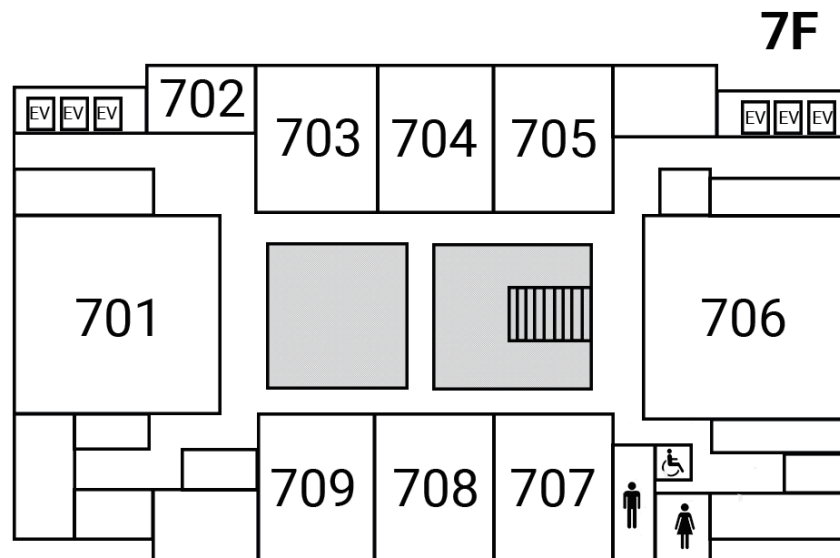




Conference Venue: Monday, November 25 to Thursday, November 28

# Toshi Center Hotel

Address: Hirakawacho 2-4-1, Chiyoda Ku, Tokyo





# Yokoso!

That's "welcome" in Japanese (\*^\_^\*)♡

## IAFOR Tokyo Conference Series

March 25-29, 2025 | Tokyo, Japan & Online

The 11th Asian Conference on Education & International Development (ACEID2025)  
The 15th Asian Conference on Psychology & the Behavioral Sciences (ACP2025)  
The 11th Asian Conference on Aging & Gerontology (AGen2025)

**Abstract Submission Deadline: December 13, 2024**

iafor

Where will your ideas  
take you next?

Visit [iafor.org/conferences](https://iafor.org/conferences) for more information about our upcoming events





## November 24 | All times are Japan Standard Time (UTC+9) Sunday at a Glance

### Conference Venue: Hotel Le Port Kojimachi, Tokyo

13:30-14:30 Pre-Conference Check-in & Coffee | Sapphire Room (2F)

**14:30-15:30 Pre-Conference Workshop Presentation | Sapphire Room (2F)**  
*Writing a Successful Grant Application: Mastering Significance, Innovation, and Approach for Your Career*  
James W. McNally, University of Michigan & NACDA, United States  
Sela V. Panapasa, University of Michigan, United States

15:30-15:45 Coffee Break

**15:45-16:45 Pre-Conference Workshop Presentation | Sapphire Room (2F)**  
*Developing Academic Skills for a Successful Academic Career*  
Umberto Ansaldi, University of Hong Kong, Hong Kong & University of Western Australia, Australia

**17:30-19:30 Welcome Reception | The Public Red Akasaka**  
This is a free event open to all registered delegates



## November 25 | All times are Japan Standard Time (UTC+9) Monday at a Glance

### Conference Venue: Toshi Center Hotel, Tokyo

- 09:30-10:30    Conference Check-in & Coffee | 601 (6F)
- 10:30-10:40    Announcements | Orion Hall (5F) & Online
- 10:40-11:00    Welcome Addresses & Recognition of IAFOR Scholarship Winners | Orion Hall (5F) & Online**  
Joseph Haldane, IAFOR, Japan
- 11:00-11:30    Keynote Presentation | Orion Hall (5F) & Online**  
*University-Assisted Community Schools: An Interdisciplinary, International Movement to Promote Equity and Transform Education*  
Laura Bronstein, Binghamton University, United States
- 11:30-11:45    Q&A
- 11:50-12:50    Workshop Presentation | Orion Hall (5F) & Online**  
*Internet Disinformation, Epistemology, and Education: Meeting the Challenges of Massive Lying*  
Keith W. Miller, University of Missouri-St. Louis, United States
- 12:50-13:00    Conference Photograph





## November 25 | All times are Japan Standard Time (UTC+9) Monday at a Glance

**Conference Venue: Toshi Center Hotel, Tokyo**

13:00-14:20    Lunch Break

**14:20-15:20    Panel Presentation | Orion Hall (5F) & Online**

*Navigating the Hype and Reality of Generative AI in Higher Education: Opportunities, Challenges, and Emerging Trends*

Héctor G. Ceballos, Tecnológico de Monterrey, Mexico

Kenneth Lo, The Singapore University of Technology and Design, Singapore

Danny Bielik, Digital Education Council, Singapore

Sean McMinn, The Hong Kong University of Science and Technology, Hong Kong  
(Moderator)

15:20-15:50    Extended Coffee Break

**15:50-16:50    Monday Poster Session | Orion Hall (5F)**



## November 26 | All times are Japan Standard Time (UTC+9) Tuesday at a Glance

**Conference Venue: Toshi Center Hotel, Tokyo**

**The IAFOR Undergraduate Symposium (IURS) begins at noon today. Please see page 19 for the full IURS Programme**

09:00-09:30 Conference Check-in & Coffee | Subaru Room (5F)

09:30-09:45 Announcements | Orion Hall (5F) & Online

**09:45-10:45 Panel Discussion: IAFOR Global Fellows | Orion Hall (5F) & Online**  
*Community Engagement and Education in East Asia: From Preservations of Cultural Heritage to Practices of Contemporary Art*  
Hongmin Ahn, IAFOR Global Fellow  
Yanhua Zhou, IAFOR Global Fellow  
Joseph Haldane, IAFOR, Japan (Moderator)

10:45-11:00 Coffee Break

**11:00-12:00 The Forum | Orion Hall (5F) & Online**  
*Global Citizenship: Local Communities and the Academy*  
Laura Bronstein, Binghamton University, United States (Moderator)  
Melina Neophytou, IAFOR, Japan (Moderator)

12:00-13:00 Lunch Break

**13:00-14:00 Tuesday Poster Session | Orion Hall (5F)**

14:00-14:10 Coffee Break





## November 26 | All times are Japan Standard Time (UTC+9) Tuesday at a Glance

**Conference Venue: Toshi Center Hotel, Tokyo**

**14:10-15:25    Onsite Parallel Session 1**

Room 603 (6F): The Teaching of Social Studies

Room 604 (6F): Collaborative Learning

Room 605 (6F): Counselling, Guidance & Adjustment in Education

Room 607 (6F): Education & Difference

Room 608 (6F): Special Topics in Educational Management

15:25-15:40    Coffee Break

**15:40-16:55    Onsite Parallel Session 2**

Room 603 (6F): Culture & Sociology

Room 604 (6F): Problem-based Learning

Room 605 (6F): Counselling, Guidance & Adjustment in Education

Room 607 (6F): Service Learning & Lifelong Learning

Room 608 (6F): Design, Implementation & Assessment of Innovative Technologies in Education

**19:00-21:00    Conference Dinner | Shunju Tameikesanno**

*This ticketed event is sold out.*



# Think Big.

IAFOR London Conference Series

July 10-14, 2025 | London, United Kingdom & Online

ECE/ECAH/EGen2025

The 13th European Conference on Education

The 13th European Conference on Arts & Humanities

The 5th European Conference on Aging & Gerontology

**Abstract Submission Deadline: April 18, 2025**

Where will your ideas  
take you next?

Visit [iafor.org/conferences](https://iafor.org/conferences) for more  
information about our upcoming events

iafor





## The IAFOR Undergraduate Research Symposium (IURS)

The IAFOR Undergraduate Research Symposium (IURS), previously the Asian Undergraduate Research Symposium (AURS), provides students with a motivating and thought-provoking opportunity to present their research. IURS takes place in a supportive and collegial environment at IAFOR's renowned international conferences where students can network with other undergraduates and academics from around the world.

We invite all delegates to join us! Come and support the next generation of scholars with your presence and attention, with your great questions and guidance.

See you at the IURS Poster session!

### Symposium Schedule | Tuesday, November 26, 2024

11:30-12:00	Student Participant Check-in   Room 603 (6F)
12:00-12:10	<b>Welcome Address   Room 603 (6F)</b> Joseph Haldane, The International Academic Forum (IAFOR), Japan
12:10-12:30	<b>Final Briefing Session   Room 603 (6F)</b> Grant Black, Chuo University, Japan & Vice President, The International Academic Forum (IAFOR), Japan
12:30-13:00	<b>Poster Set Up and Practice   Orion Hall (5F)</b>
13:00-14:00	<b>Poster Presentation Session   Orion Hall (5F)</b>
14:00-14:10	Concluding Remarks





## November 27 | All times are Japan Standard Time (UTC+9) Wednesday at a Glance

### Conference Venue: Toshi Center Hotel, Tokyo

09:00-09:30 Conference Check-in & Coffee | Room 601 (6F)

#### 09:30-11:10 Onsite Parallel Session 1

Room 601 (6F): Foreign Languages Education & Applied Linguistics

Room 603 (6F): Design, Implementation & Assessment of Innovative Technologies in Education

Room 604 (6F): Film & Literature in Teaching Practice

Room 605 (6F): Interdisciplinary, Multidisciplinary & Transdisciplinary Education

Room 607 (6F): The Teaching of Chemistry

Room 608 (6F): Higher Education Teaching Practices

Room 703 (7F): Learning Experiences, Student Learning & Learner Diversity

Room 704 (7F): Early Childhood Education

Room 705 (7F): Teacher Professional Development

Room 707 (7F): Educational Policy, Leadership, Management & Administration

Room 708 (7F): Technical-Vocational Education

11:10-11:25 Coffee Break

#### 11:25-12:40 Onsite Parallel Session 2

Room 601 (6F): English as a Medium of Instruction

Room 603 (6F): Design, Implementation & Assessment of Innovative Technologies in Education

Room 604 (6F): Literature & Language Learning

Room 605 (6F): Islamic Studies in Education

Room 607 (6F): The Teaching of Science, Health & PE

Room 608 (6F): Higher Education

Room 703 (7F): Learning Experiences, Student Learning & Learner Diversity

Room 704 (7F): Primary & Secondary Education

Room 705 (7F): Knowledge Creation, Preservation & Access: Curation, Librarianship, Information & Archival Science

Room 707 (7F): Educational Policy, Leadership, Management & Administration

Room 708 (7F): Teacher Professional Development

12:40-12:55 Coffee Break



## November 27 | All times are Japan Standard Time (UTC+9) Wednesday at a Glance

**Conference Venue: Toshi Center Hotel, Tokyo**

### **12:55-14:35 Onsite Parallel Session 3**

Room 601 (6F): Aesthetics & Design Education

Room 603 (6F): Design, Implementation & Assessment of Innovative Technologies in Education

Room 604 (6F): Language Development & Literacy

Room 605 (6F): Interdisciplinary, Multidisciplinary & Transdisciplinary Education

Room 607 (6F): The Teaching of STEM

Room 608 (6F): Higher Education

Room 703 (7F): Foreign Languages Education & Applied Linguistics

Room 704 (7F): Primary & Secondary Education

Room 705 (7F): Professional Training, Development & Concerns in Education

Room 707 (7F): Educational Policy, Leadership, Management & Administration

Room 708 (7F): Teaching & Learning Resources

14:35-14:50 Coffee Break

### **14:50-16:30 Onsite Parallel Session 4**

Room 601 (6F): Communication Skills & Development

Room 603 (6F): Design, Implementation & Assessment of Innovative Technologies in Education

Room 604 (6F): Language Development & Literacy

Room 605 (6F): Education, Sustainability & Society: Social Justice, Development & Political Movements

Room 607 (6F): The Teaching of Mathematics

Room 608 (6F): Adult, Lifelong & Distance Learning

Room 703 (7F): Foreign Languages Education & Applied Linguistics

Room 704 (7F): Primary & Secondary Education

Room 705 (7F): Professional Training, Development & Concerns in Education

Room 707 (7F): Education & Difference

Room 708 (7F): Professional Training, Development & Concerns in Education



# Groundbreaking Ideas

## IAFOR Spring Conference Series in Tokyo

May 11–16, 2025 | Tokyo, Japan & Online

The 16th Asian Conference on Arts & Humanities (ACAH2025)  
The 15th Asian Conference on Cultural Studies (ACCS2025)  
The 16th Asian Conference on the Social Sciences (ACSS2025)

**Abstract Submission Deadline:  
February 14, 2025**

Where will your ideas  
take you next?

Visit [iafor.org/conferences](https://iafor.org/conferences) for more information about our upcoming events

iafor





## November 27 | All times are Japan Standard Time (UTC+9) Wednesday at a Glance

**Conference Venue: Toshi Center Hotel, Tokyo**

16:30-16:45    Coffee Break

**16:45-18:25    Onsite Parallel Session 5**

Room 601 (6F): No Session

Room 603 (6F): No Session

Room 604 (6F): Featured Workshop: Teaching Ethnography by Walking: Pedagogy in Action

Room 605 (6F): Interdisciplinary, Multidisciplinary & Transdisciplinary Education

Room 607 (6F): The Teaching of Biology

Room 608 (6F): Adult, Lifelong & Distance Learning

Room 703 (7F): AI and Language Learning

Room 704 (7F): Primary & Secondary Education

Room 705 (7F): Assessment Theories & Methodologies

Room 707 (7F): Education & Difference

Room 708 (7F): Educational Research, Development & Policy

**18:30-19:15    Cultural Event | Room 601 (6F)**

*Kimono Workshop*

This is a free event open to all registered delegates

Delegates are invited to a special session focusing on the art of kimono dressing, featuring live demonstrations by kimono instructor Satoko Yamada.





## November 28 | All times are Japan Standard Time (UTC+9) Thursday at a Glance

### Conference Venue: Toshi Center Hotel, Tokyo

09:00-09:30 Conference Check-in & Coffee | Room 601 (6F)

#### 09:30-11:10 Onsite Parallel Session 1

Room 601 (6F): Challenging & Preserving Culture, Inter/Multiculturalism & Language

Room 603 (6F): Curriculum Design & Development

Room 604 (6F): Curriculum Design & Development (Workshops)

Room 605 (6F): Mind, Brain & Psychology: Human Emotional & Cognitive Development & Outcomes within Educational Contexts

Room 607 (6F): Education, Sustainability & Society

Room 608 (6F): Teacher Professional Development

Room 703 (7F): Higher Education

Room 704 (7F): Design, Implementation & Assessment of Innovative Technologies in Education

Room 705 (7F): The Teaching Profession

Room 707 (7F): Indigenous & Inclusive Education

Room 708 (7F): Foreign Languages Education & Applied Linguistics

11:10-11:25 Coffee Break

#### 11:25-12:40 Onsite Parallel Session 2

Room 601 (6F): Challenging & Preserving Culture, Inter/Multiculturalism & Language

Room 603 (6F): Curriculum Design & Development

Room 604 (6F): Nurturing Creativity & Innovation: New Innovative & Radical Education (Panel)

Room 605 (6F): Mind, Brain & Psychology: Human Emotional & Cognitive Development & Outcomes within Educational Contexts

Room 607 (6F): Education, Sustainability & Society

Room 608 (6F): Entrepreneurial & Business Education

Room 703 (7F): Higher Education

Room 704 (7F): Higher Education

Room 705 (7F): Online & Blended Learning

Room 707 (7F): Inquiry and Project-based Learning

Room 708 (7F): Foreign Languages Education & Applied Linguistics



## November 28 | All times are Japan Standard Time (UTC+9) Thursday at a Glance

### Conference Venue: Toshi Center Hotel, Tokyo

12:40-12:55    Coffee Break

#### **12:55-14:35    Onsite Parallel Session 3**

Room 601 (6F): Challenging & Preserving Culture, Inter/Multiculturalism & Language

Room 603 (6F): Design, Implementation & Assessment of Innovative Technologies in Education

Room 604 (6F): Design, Implementation & Assessment of Innovative Technologies in Education  
(Workshops)

Room 605 (6F): Nurturing Creativity & Innovation: New Innovative & Radical Education

Room 607 (6F): Education, Sustainability & Society

Room 608 (6F): Professional Training, Development & Concerns in Education

Room 703 (7F): Higher Education

Room 704 (7F): Higher Education

Room 705 (7F): Online & Blended Learning

Room 707 (7F): International Education

Room 708 (7F): Foreign Languages Education & Applied Linguistics

14:35-14:50    Coffee Break

#### **14:50-16:30    Onsite Parallel Session 4**

Room 601 (6F): Professional Development

Room 603 (6F): Design, Implementation & Assessment of Innovative Technologies in Education

Room 604 (6F): Design, Implementation & Assessment of Innovative Technologies in Education  
(Workshops)

Room 605 (6F): Nurturing Creativity & Innovation: New Innovative & Radical Education

Room 607 (6F): Special Topics in Educational Practice

Room 608 (6F): Professional Training, Development & Concerns in Education

Room 703 (7F): Education, Sustainability & Society

Room 704 (7F): Higher Education

Room 705 (7F): Curriculum Design & Development

Room 707 (7F): International Education

Room 708 (7F): Teacher Education

#### **16:35-16:50    Onsite Closing Session | Room 601 (6F)**





## November 29 | All times are Japan Standard Time (UTC+9) Friday at a Glance

### Conference Venue: Online via Zoom

07:55-08:00 Message from IAFOR

#### 08:00-09:00 Online Featured Panel Presentation

*Navigating AI in Higher Education: Multiple Perspectives from Policy to Practice*

Susie Kung, Manukau Institute of Technology, New Zealand

Kylie Smith, Manukau Institute of Technology, New Zealand

Karin Avnit, Singapore Institute of Technology, Singapore

Fiona Westbrook, Auckland University of Technology, New Zealand

09:00-09:15 Break

#### 09:15-10:55 Online Parallel Session 1

Live-Stream Room 1: Development & Practices in STEM & Design Education

Live-Stream Room 2: Case Studies in Higher Education & TVET

Live-Stream Room 3: Innovative Strategies in Language Learning

Live-Stream Room 4: AI and Education

Live-Stream Room 5: Education Development & Policy

10:55-11:05 Break

#### 11:05-12:45 Online Parallel Session 2

Live-Stream Room 1: Design, Implementation & Assessment of Innovative Technologies in Education

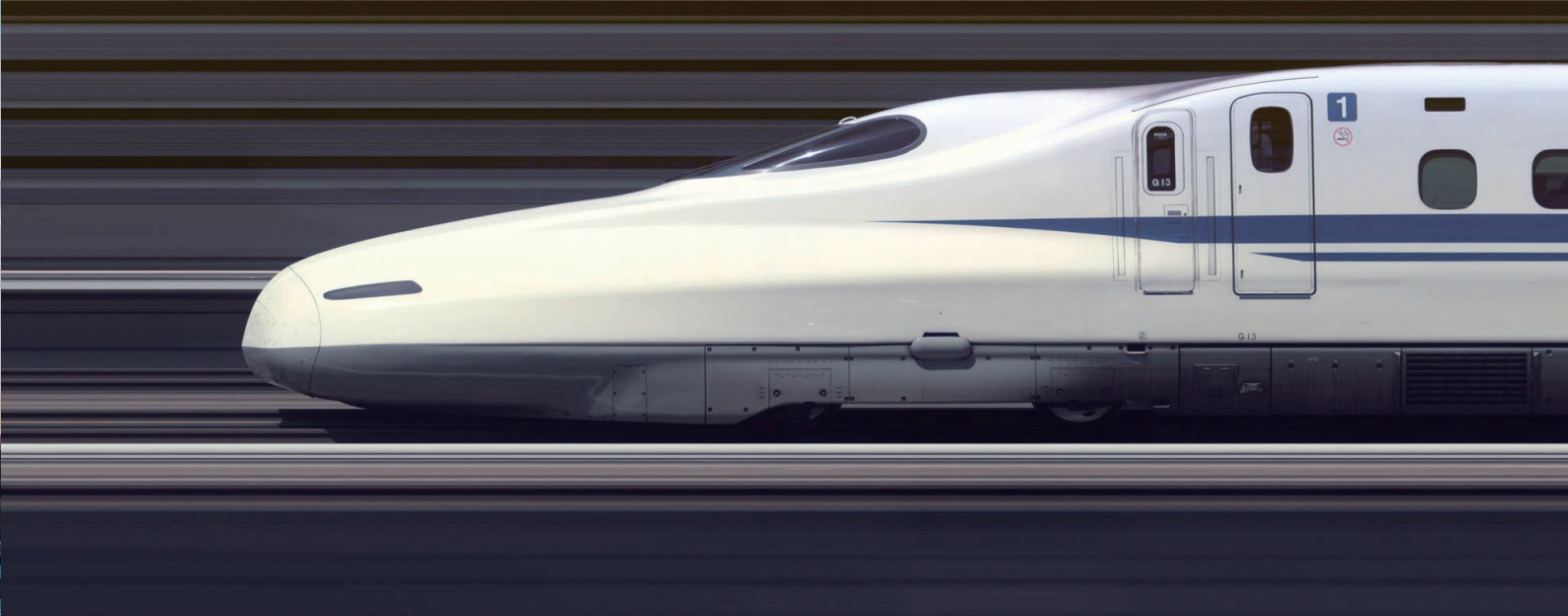
Live-Stream Room 2: Learning & Career Motivations in Higher Education

Live-Stream Room 3: Special Topics in Education

Live-Stream Room 4: Blended & Online Learning

Live-Stream Room 5: Language Learning

12:45-12:55 Break



## November 29 | All times are Japan Standard Time (UTC+9) Friday at a Glance

### Conference Venue: Online via Zoom

#### **12:55-14:35 Online Parallel Session 3**

Live-Stream Room 1: Innovative Practices & Policies in Higher Education

Live-Stream Room 2: Teaching & Professional Development

Live-Stream Room 3: Policy & Practice in Literacy & Language Development

Live-Stream Room 4: Emerging & Critical Issues in Education

Live-Stream Room 5: Skills Development

14:35-14:45 Break

#### **14:45-15:45 Online Featured Panel Presentation**

*Blended Learning: Overcoming Challenges and Implementing Solutions*

Murielle El Hajj Nahas, Lusail University, Qatar

Leandro Loyola, Conestoga College Institute of Technology and Applied Learning, Canada

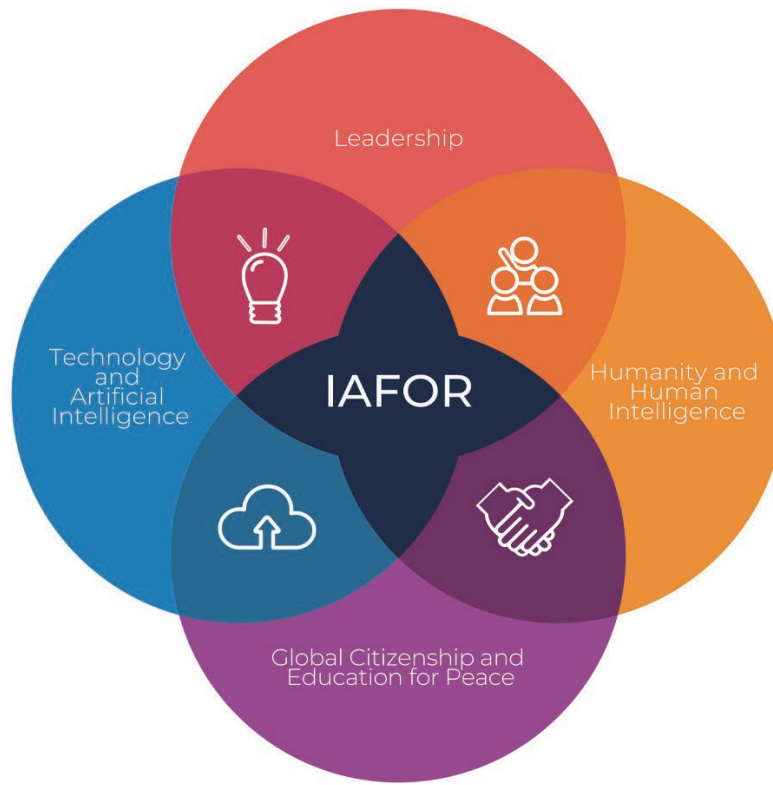
Ya-Ling Wang, National Taiwan Normal University, Taiwan

15:45-15:50 Closing Message from IAFOR



# Introducing IAFOR's Conference Themes for 2025-2029

International | Intercultural | Interdisciplinary



IAFOR's conference programme provides an essential comparative and contrastive space for people to engage in multidisciplinary research across borders of nation, culture, discipline, and professions. We encourage mixed approaches and methodologies, combining theory and practice between and across the disciplines, and we look to harness the collective intelligence of our International Academic Forum in addressing some of the most pressing issues of our time. Through the implementation of new formats in our conference programme over the last year, including Intelligence Briefings, Keynote Interviews, and The Forum, we gathered insights into what has been discussed at the theoretical and policy levels, identify the challenges, and the outlook for best practices in tackling global contemporary issues, which we have identified as the themes for 2025-2029. Our four themes can be seen as standalone themes, but they are also very much in conversation with each other. Themes may be seen as corollaries, complementary, or in opposition/juxtaposition with each other. The themes can be considered as widely as possible and are designed, in keeping with our mission, to encourage ideas across the disciplines.

## **1. Technology and Artificial Intelligence**

Our first theme examines the rapid pace of technological advancements, aided most particularly by those driven by artificial intelligence and its enormous and growing impact in all fields.

## **2. Humanity and Human Intelligence**

Our second theme asks us which principles, values, and attributes we wish to encourage, protect, and nurture and how we accomplish this. Technological advancements constantly ask us to reconsider and reimagine what it means to be human, including questions regarding communication, creativity, inclusivity, ethics, and care.

## **3. Global Citizenship and Education for Peace**

This theme prompts us to consider our existence and coexistence with each other, within our communities and places of belonging, and with peoples of different countries, cultures, and backgrounds, as well as with our environment and our planet. It includes engagement with enormous issues facing us beyond borders, such as peace and human security, climate change, etc.

## **4. Leadership**

The final theme recognises the continuing importance of leadership as a skill, particularly in light of difficult times, where recognising and encouraging best practices in leadership at all levels of society is critical. Encouraging leadership at the government level, in businesses, and within institutions of all sizes represents the engine of change.

## **Conference Themes in Theory, Policy, and Practice**

Many theories are born and initially tested in the academy, informing discussions in the public sphere that influence policy. IAFOR represents a unique combination of engagement emerging from the collaborative efforts of senior policymakers, administrators, and individuals working on the ground or in the field. IAFOR has made this rare combination of equitable theoretical and practical exchanges the standard for our organisation and represents a valuable model for how science should be done.

We will develop conference and institutional programmes and publications around these themes as well as capacity building sessions for our conference programme over the next five years. It is our aim with the implementation of these themes, alongside the implementation and continuing refinement of new formats, to best harness the unique arena IAFOR and its network have built in regards to pressing issues of today and the future.





# General Information

## Check-in & Information Desk

You will be able to pick up your name badge at the Conference Check-in & Information Desk at the times listed below.

Sunday, November 24 | 13:30-16:00 - Hotel Le Port Kojimachi, Sapphire Room (2F)

Monday, November 25 | 09:30-16:00 - Toshi Center Hotel, Room 601 (6F)

Tuesday, November 26 | 09:00-16:30 - Toshi Center Hotel, Subaru Room (5F)

Wednesday, November 27 | 09:00-18:00 - Toshi Center Hotel (6F)

Thursday, November 28 | 09:00-16:00 - Toshi Center Hotel (6F)

Friday, November 29 | No in-person check-in

If you have any questions or concerns, IAFOR staff and volunteers will happily assist you in any way they can.

## Conference Schedule

The full conference schedule (including abstracts) and conference programme are available on the conference website.

## Online Sessions

Be sure to join us online on **Friday, November 29** for our live-stream Plenary Programme and parallel presentation sessions.

## Conference Survey

Please take a few moments to fill out our conference survey at the end of the conference.



Schedule



Online Session Access



Conference Survey



# General Information

## Refreshment Breaks

Complimentary coffee, tea, juice, water, and light snacks will be available during the scheduled coffee breaks. Please note that lunch is not provided.

## Name Badges

Wearing your badge is required for entrance to the sessions. You must wear your badge at all times.

## Connecting to WiFi

Free WiFi is provided at the Toshi Center Hotel. To log in on any of your smart devices, please use the network name and password provided below. Please note that the WiFi is very unreliable so we would strongly suggest that you do not rely on a live connection for your presentation and prepare a personal WiFi or data plan.

Network Name: Toshicenter\_Hotel\_Wi-Fi  
Password: toshi19590302

## Photo/Recording Waiver

Human interaction through networking, and dissemination of this knowledge, is at the core of what IAFOR does as an academic research organisation, conference organiser and publisher. As part of the archiving of the conference event, IAFOR takes photos in and around the conference venue, and uses the photos to document the event. This also includes the filming of certain sessions. We consider this documentation important and it provides evidence of our activities to members, partners and stakeholders all over the world, as well as to current and potential attendees like you. Some of these photos will therefore appear online and in print, including on social media. The above are the legitimate interests of the organisation that we assert under the European Union law on General Data Protection Regulation (GDPR). Under this legislation, you have an absolute right to opt out of any photo. We are committed to protecting and respecting your privacy.

Read our full privacy policy – [iafor.org/about/privacy-policy](https://iafor.org/about/privacy-policy)



# Conference Networking Events

## Welcome Reception | The Public Red Akasaka

Join fellow delegates for a drink or two at the conference Welcome Reception. This event provides a great opportunity for delegates to network and get to know each other. The event will be held at **The Public Red Akasaka**, Tokyo. The Public Red Akasaka is a short ten-minute walk from the conference venue.

Time & Date: Sunday, November 24, 2024 | 17:30-19:30

Location: The Public Red Akasaka

Address: Akasaka 3-11-8 1F, Minato Ku, Tokyo

Ticket Price: **Free to attend**

*Admission is included in the conference registration fee and is only open to registered conference delegates and audience members*

## Conference Dinner | Shunju Tameike Sanno

Celebrated for its blend of traditional and contemporary Japanese cuisine, Shunju Tameike Sanno offers an experience where classic flavours meet modern culinary techniques. Join us for an evening of refined dining in Tokyo's cosmopolitan midtown.

Time & Date: Tuesday, November 26, 2024 | 19:00-21:00

Location: Sanno Park Tower 27F, Nagatacho 2-1-1, Chiyoda Ku, Tokyo

Ticket Price: **Sold Out**

*This is a ticketed event. Only delegates with pre-purchased tickets are able to attend the Conference Dinner*

## Cultural Event | Kimono Dressing Demonstration

Delegates are invited to a special session focusing on the art of kimono dressing, featuring live demonstrations by kimono instructor Satoko Yamada. This interactive session will guide attendees through the precise process of dressing in a kimono, using live models to illustrate each step. Yamada Sensei will provide explanations on the techniques used, as well as the cultural rationale and traditions behind these practices. This live session promises to be both educational and engaging, offering insights into the rich cultural heritage of Japan.

Time & Date: Wednesday, November 27, 2024 | 18:30-19:15

Location: Toshi Center Hotel, Room 601 (6F)

Ticket Price: **Free to attend**

*Admission is included in the conference registration fee and is only open to registered conference delegates and audience members*

# Conference Proceedings

IAFOR Conference Proceedings are Open Access research repositories that act as permanent records of the research generated by IAFOR conferences. The Conference Proceedings are published on the IAFOR Research Archive ([papers.iafor.org](http://papers.iafor.org)). All accepted authors who present at the conference may have their full paper published in the online Conference Proceedings. Full text submission is due by **Wednesday, January 15, 2025**, through the online system. The proceedings will be published on **Friday, February 21, 2025**.

## Certification

Corresponding authors will be able to download Certificates of Presentation for all presenters by logging in to the submission page. Certificates of Presentation will be available from **Monday, December 9, 2024**. Session Chair certification, Certificates of Attendance, as well as reviewer certification, will be sent out by email in a PDF format after the conference.

## Conference Catch-up

All Keynote Presentations and live-streamed sessions will be recorded and uploaded to the Conference Catch-up page (video-on-demand) via Vimeo. The catch-up page will be publicly available after the conference until **Tuesday, December 31, 2024**.

## Pre-recorded Virtual Presentations & Virtual Poster Presentations

A full list of pre-recorded virtual video presentations and virtual poster presentations will be on the conference website during and after the conference. We encourage you to watch these presentations and provide feedback through the video comments.





A full-page background image of the Eiffel Tower in Paris, France, illuminated at night. The tower's golden lights contrast with the deep blue twilight sky. The base of the tower and some Parisian buildings are visible in the lower portion of the frame.

# *Ooh-La-La!*

IAFOR Paris Conference Series

June 10-14, 2025 | Paris, France & Online

The 4th Paris Conference on Education (PCE2025)

The 4th Paris Conference on Arts & Humanities (PCAH2025)

**Abstract Submission Deadline: March 14, 2025**

Where will your ideas  
take you next?

Visit [iafor.org/conferences](https://iafor.org/conferences) for more  
information about our upcoming events

iafor



## iafor.org/publications

# IAFOR Journals

IAFOR publishes several editorially independent, Open Access journals across a variety of disciplines. They conform to the highest academic standards of international peer review, and are published in accordance with IAFOR's commitment to make all of our published materials available online.

### How are papers submitted?

Submissions should be original, previously unpublished papers which are not under consideration for publication in any other journal. All articles are submitted through the submission portal on the journal website and must conform to the journal submission guidelines.

### How does IAFOR ensure academic integrity?

Once appointed by IAFOR's Publications Committee, the Journal Editor is free to appoint his or her own editorial team and advisory members, who help to rework and revise papers as appropriate, according to internationally accepted standards. All papers published in the journal have been subjected to the rigorous and accepted processes of academic peer review. Neither editors nor members of the editorial team are remunerated for their work.

### Where are the journals indexed?

IAFOR Journals are indexed in Scopus, DOAJ, ERIC, MIAR, TROVE, CiteFactor and EBSCO, SHERPA/ROMEO and Google Scholar. DOIs are assigned to each published issue and article via Crossref. Please note that indexing varies from journal to journal.

### What's the reach?

Each of our journal issues is viewed thousands of times a month and the articles are frequently cited by researchers worldwide, largely due to our dedicated marketing efforts. Each issue is promoted across our social media platforms and to our tailored email marketing lists. On average, each journal publishes biannually.

### What's the cost?

IAFOR Journals are Open Access publications, available online completely free of charge and without delay or embargo. Authors are not required to pay charges of any sort towards the publication of IAFOR Journals and neither editors nor members of the editorial boards are remunerated for their work.

### How are IAFOR Journals related to IAFOR Conferences and Conference Proceedings?

IAFOR Journals reflect the interdisciplinary and international nature of our conferences and are organised thematically. A presenter can choose to publish either in Conference Proceedings or submit their manuscript to the corresponding IAFOR Journal for review.

### Current IAFOR Journal titles include

*IAFOR Journal of Arts & Humanities*

*IAFOR Journal of Cultural Studies* (Scopus indexed)

*IAFOR Journal of Education* (Scopus indexed)

*IAFOR Journal of Literature & Librarianship* (Scopus indexed)

**If you would like more information about any of IAFOR's publications, please visit [iafor.org/publications](http://iafor.org/publications)**



# Academic Grant & Scholarship Recipients

IAFOR's grants and scholarships programme provides financial support to PhD students and early career academics, with the aim of helping them pursue research excellence and achieve their academic goals through interdisciplinary study and interaction. Our warmest congratulations go to the following scholarship recipients who have been selected to receive grants and scholarships to present their research at the conference.

## ACE2024 Scholarship Recipients

### **Azriel Barrientos (Virtual Presentation)**

83957 | *DIMenGeComS in Action: Evaluating its Effectiveness on Grade 8 Mendelian Genetics Education*

Mr Azriel Barrientos currently works as an instructor at the Mindanao State University-Iligan Institute of Technology, Philippines.

### **Raymond Canlapan (Oral Presentation)**

85206 | *Exploring the Classroom Mindset of High School Mathematics Teachers: Basis for a Growth-mindset Focused Instructional Design Framework*

Mr Raymond Canlapan is the Head of the Mathematics Department at an IB school in Japan.

### **Gianinna Elaine Labicane (Oral Presentation)**

79911 | *Native Tongue, Foreign Lands: Experiences of Fulbright Foreign Language Teaching Assistants at a US University*

Ms Gianinna Elaine Labicane is an Assistant Professor and the Community and Global Affairs Liaison at Romblon State University, Philippines.

### **Jonathan Klix (Oral Presentation)**

82483 | *The German Pedagogy of Intellectual Disabilities as an Inclusive-Participative Scientific Discipline?*

Mr Jonathan Klix, Research Associate at Leibniz University Hannover, Germany, specialises in pedagogy for intellectual disabilities.

### **Ernest Mpindo (Live-Stream Presentation)**

81343 | *Teachers' Perceptions of Learners' Human Rights: Implications on Classroom Management in South African Local Public Schools*

Mr Ernest Mpindo is currently a PhD student at Central University of Technology, South Africa.

### **Pradnya Wicaksana (Virtual Presentation)**

85570 | *Promoting Academic Freedom Under Neoliberal Legal Reform: The Case of Indonesia*

Mr Pradnya Wicaksana is a Master of Arts candidate at the Institute of Human Rights and Peace Studies at Mahidol University, Thailand.

### **Hantong Zhao (Oral Presentation)**

85537 | *Designing a GenAI Chatbot for Enhancing Emotional Engagement of Online Learners in Blended Synchronous Learning*

Ms Hantong Zhao is currently a graduate student at the National Institute of Education, Nanyang Technological University, Singapore.

# IAFOR Global Fellows 2024/2025

IAFOR is delighted to announce the IAFOR Global Fellows for 2024/2025 as a part of its Global Fellowship Programme initiative. This fellowship programme is a wonderful opportunity for researchers to engage with IAFOR and its international network and collaborate together as fellows themselves to strengthen their research capacity and broaden their connections. In the inaugural 2024/2025 Programme, we proposed a theme of 'independent voices' with a focus on East Asian topics, selecting a cohort of up-and-coming researchers in the field to contribute to building a broader knowledge within the region where IAFOR operates. The selected fellows have shown their outstanding capacity and commitment to represent independent voices from various perspectives, be it the arts, culture, or politics. Members of the IAFOR community can look forward to engaging with the fellows through upcoming conferences and their publications.

IAFOR Global Fellows will be correspondingly appointed Fellows in the IAFOR Research Centre at Osaka University's School of International Public Policy (OSIPP) for the duration of their Fellowship.

We received a large number of applications and are proud to introduce the five successful fellows for the 2024/2025 cohort as follows:

## **Hongmin Ahn, South Korea**

Hongmin Ahn is an incoming student at the Inter-University Center for Japanese Studies in Yokohama, Japan (2024-25). He holds a Master of Theological Studies in Buddhism from Harvard Divinity School at Harvard University, United States, and a Bachelor of Arts in Religion from Bard College, also located in the United States. As an interdisciplinary scholar, Mr Ahn's research focuses on modern transnational Buddhism in Korea and Japan, exploring their history, culture, practices, gender dynamics, and institutions such as clerical marriage and the popularisation of Buddhism through military chaplaincy.

## **Azusa Iwane, Japan**

Azusa Iwane is the vice-project manager and editor at Global News View (GNV), an independent media outlet introducing the Japanese audience to international news overlooked by domestic mainstream media. She conducted a series of field studies in Zambia to better grasp the effective poverty experienced by mining communities with the collaboration of the Dag Hammarskjöld Institute for Peace and Conflict Studies, Copperbelt University.

## **Sheng-Hsiang Lance Peng, Taiwan**

With his recent PhD completion from Cambridge University's Education Faculty, Dr Sheng-Hsiang Lance Peng is an early career research fellow at IAFOR. In his current monster(s) project, Lance uses monstrous perspectives of othering to reimagine narratives from the periphery of Japanese society.

## **Shuqi Wang, China**

Dr Shuqi Wang just earned her doctorate degree from Nanyang Technological University, Singapore. Her research focuses on international relations and foreign policy analysis. She currently explores the historical influences on foreign policy preferences within US alliance systems.

## **Yanhua Zhou, China**

Dr Yanhua Zhou is currently a Professor of Art History at the Research Center for Visual Art, Sichuan Fine Arts Institute, China. She is also affiliated as a Professor with the Department of East Asian Studies at University of Arizona, United States. Her research focuses on the issue of art and geographic politics of contemporary art in Asia, global socially engaged art in a transnational context, affective infrastructural studies, and non-human agency in art.

Find out more about the IAFOR Global Fellowship Programme at <https://iafor.org/iafor-global-fellowship-programme/>



## Notes

[illegible]




# Keynote & Featured Presentations

**All times are Japan Standard Time (UTC+9)**

Abstracts appear as originally submitted by the author. Any spelling, grammatical, or typographical errors are those of the author.





# Workshop Presentation: James W. McNally, Sela V. Panapasa

## Writing a Successful Grant Application: Mastering Significance, Innovation, and Approach for Your Career

Sunday, November 24, 2024 | 14:30-15:30 | Sapphire (2F) & Online

The ability to write, submit, and administer research grants has become an increasingly vital role in developing an academic career. Funders seek good ideas and innovative approaches that enhance research designs, classroom pedagogies, student and professional growth, conference development, and travel. The wide array of organisations representing potential funders can be summarised as federal or governmental awards, foundation or philanthropic awards, and private business awards. Typically structured as contracts, grants, or gifts, these mechanisms have critical distinctions, often requiring very different deliverables and outcomes expectations. Additionally, the type of mechanism will also impact the funds' fungibility in accomplishing the project goals. Knowing how to navigate the grant research, selection, and writing processes can prove essential for getting projects off the ground and to their completion.

This workshop will offer training, guidance, and opportunities to discuss grantsmanship as an integral part of the learning process and a critical element of academic advancement. It will also involve reviewing how to identify funders who best reflect research interests, interacting with funding agencies, and ways to build funding networks. The critical elements for developing a successful grant application and effectively budgeting requested funds will also be discussed. This workshop will also offer time management tips for meeting deadlines and ensuring applicants have crossed all 't's' and dotted all 'i's'. While the rules, expectations, and procedures for grant applications will vary internationally, organisationally, and internally, the basics of grantsmanship all share commonalities regarding significance, innovation, and approach. Understanding and mastering these skills will enhance and expand an applicant's capacities as an instructor, mentor, and researcher.



## James W. McNally

Dr James W. McNally is the Director of the NACDA Program on Aging, a data archive containing over 1,500 studies related to health and the ageing life course. He is also a Senior Advisor for the National Institute on Aging (NIA), Division of Behavioral and Social Science (DBSR/ODRA). He currently does methodological research on the improvement and enhancement of secondary research data and has been cited as an expert authority on data imputation. Dr McNally has directed the NACDA Program on Aging since 1998 and has seen the archive significantly increase its holdings with a growing collection of seminal studies on the ageing life course, health, retirement and international aspects of

ageing. He has spent much of his career addressing methodological issues with a specific focus on specialised application of incomplete or deficient data and the enhancement of secondary data for research applications. Dr McNally has also worked extensively on issues related to international ageing and changing perspectives on the role of family support in the later stages of the ageing life course.



## Sela V. Panapasa

Dr Sela V. Panapasa is an Associate Research Scientist at the Institute for Social Research, United States. An active researcher and leader in developing scientific research methods to address data limitations and persistent health inequities in hard-to-survey populations, she has extensive experience conducting, analysing, disseminating, and translating findings from mixed-methods research projects on Native Hawaiian and Pacific Islander (NHPI) populations in the United States and independent Pacific nations. Dr Panapasa's work has influenced policy development for these populations, from greater coverage of NHPI populations in the US Census to the use of racial categories in the American Community Survey and technical

assistance in Pacific data collections. She developed and administered the successful collection of epidemiology as part of the Pacific Islander Health Study (PIHS), leading to a collaboration with the NCHS to develop and implement the 2014 NHPI National Health Interview Survey (NHPI NHIS). Dr Panapasa is the PI on '*Mechanisms of Diabetes and Diabetic Complications in a Multiethnic Population*' and a co-investigator for the Guam National Health Interview Survey (GNHIS).'





**Workshop Presentation: Umberto Ansaldo**

# **Developing Academic Skills for a Successful Academic Career**

**Sunday, November 24, 2024 | 15:45-16:45 | Sapphire (2F) & Online**

Pursuing an academic career has become increasingly competitive and challenging in an era of technological advancements and limited resources. With universities competing for research grants internally, nationally, and internationally, and offering limited employment opportunities, developing the right competencies and standing out in the crowd has become essential for the survival of early-career academics. A successful academic career depends on how well a researcher can 'market and sell' their idea: this includes the process from the inception of an idea to selecting the right audience, as well as the consideration of dissemination paths and building a robust network.

This workshop is aimed at graduate students as well as undergraduates interested in research. Three key aspects of academic practice will be covered: (1) abstract writing; (2) conference presentation; and (3) publishing. In the first part of the workshop, we look at key features of a strong abstract and essential elements for delivering a good presentation. In the second part, we focus on publishing journal articles as well as books. Finally, we discuss strategies for selecting publishing outlets, ways to tackle the review process, and how to plan long-term for a coherent research strategy.



## Umberto Ansaldo

Professor Umberto Ansaldo is currently an Honorary Professor at the University of Hong Kong (HKU), Hong Kong. He recently served as Head of the School of Media, Creative Arts and Social Inquiry at Curtin University, Australia from 2021 through 2023. Previously, he was the Head of the School of Literature, Art and Media at the University of Sydney, Australia from 2018 through 2020, and Head of the School of Humanities at HKU, where he taught from 2009 to 2018.

Professor Ansaldo's disciplinary roots are in linguistics, specifically in the study of language contact, linguistic typology, and language documentation. He is the author of four books to date (with CUP, OUP, Routledge, and Stockholm University Press), has edited or co-edited 11 volumes and journal special collections, and has authored multiple journal articles and book chapters. His most recent publication is the co-editorship of *The Routledge Handbook of Pidgin and Creole Languages* (Routledge, 2021).

At HKU, Professor Ansaldo led the Humanities Area of Inquiry on the Common Core Curriculum Committee in HKU's major revision of its curriculum (2010-2013), a time when, along with the University of Melbourne, Australia, HKU was leading in reimagining undergraduate curricula. As Chair of Linguistics, he was instrumental in establishing the Department within the top ten programmes in Linguistics (QS rankings), with the programme ranking at number one in Hong Kong.

At the University of Sydney, Professor Ansaldo sat on the University Executive Research Committee and led his School through a transformative period in terms of curriculum innovation and research engagement. He was in charge of overseeing the incorporation of the Sydney College of the Arts into the Faculty of Arts & Social Sciences.

Professor Ansaldo has secured competitive research grants and leveraged industry funding for the advancement of the humanities and social sciences throughout his career. One of his proudest achievements was his role in securing financial support to develop and host an exhibition on language and the brain, the 'Talking Brains' exhibition at the CosmoCaixa in Barcelona, Spain in 2017. This type of engagement and championing of the Humanities is what Umberto is most passionate about.

Professor Ansaldo has lived and worked in Sweden, The Netherlands, Singapore, Australia, and Hong Kong. and speaks seven languages, including Mandarin. He is well-acquainted with Asia and has conducted fieldwork in Muslim communities of the Indian Ocean, and has developed strong international networks in Southeast Asia, Japan, and Europe.



# Keynote Presentation: Laura Bronstein

## University-Assisted Community Schools: An Interdisciplinary, International Movement to Promote Equity and Transform Education

Monday, November 25, 2024 | 11:00-11:30 | Orion Hall (5F) & Online

The groundwork for community schools began at the turn of the 20th century, modelled after settlement houses in London and major cities within the United States, and John Dewey's argument for 'the school as social centre'. Community schools provide an integrated focus on child, family, and community whereby what occurs outside the classroom is understood to be as important as what occurs inside. To address this, community schools mobilise out-of-classroom support systems so that all youth can succeed, whatever their family's assets and/or challenges. Examples of these supports include before, after, and summer school programming; physical and mental health services; family engagement; mentoring and more. The first step is a needs assessment so that supports are individually tailored to the unique needs of each school community. University-assisted community schools (UACS), a concept developed at the University of Pennsylvania, United States, utilise institutions of higher education as lead partners in community schools, mobilising the resources of area colleges and universities to support and lead local community schools. This presentation will highlight how UACS can be a strategy for any institution of higher education to transform education in their local neighbourhoods. Specific examples of roles of undergraduate and graduate students, faculty, staff, and administrators in supporting UACS will be given, and short and long-term outcomes of UACS will be shared. The development, implementation, and evaluation of this effort at Binghamton University Community Schools will be delineated as a case example in upstate New York, including how this work has been implemented at the Malawi Children's Mission in rural Africa.



### Laura Bronstein

Laura Bronstein, ACSW, LCSWR, PhD is Dean of the College of Community and Public Affairs, Professor of Social Work, Director of the Institute for Justice & Well-Being, and Founding Director of Binghamton University Community Schools, State University of New York (SUNY), United States. Prior to entering academia, Professor Bronstein worked as a practising social worker in a range of settings. Since entering academia, she has published over 70 peer-reviewed research articles and chapters and two books, and her leadership has been instrumental in various teams being awarded over 20 million dollars in federal, state, and foundation grants. She has an international reputation for her research on collaboration, including having created the widely used Index for Interdisciplinary Collaboration. In 2010, her

article on which the Index was based, A Model for Interdisciplinary Collaboration, was the eighth most highly cited publication in the social work literature. Professor Bronstein received the John A. Hartford Foundation Outstanding Dean for Aging Education award in 2011 and was Binghamton University's inaugural recipient of the Lois B. DeFleur Faculty Prize for Academic Excellence 'for scholarship that spans boundaries' the following year. She was awarded the Esther W. Couper Memorial Award for 'outstanding service and dedication to the children and families of our community' in 2017. Most recently, Professor Bronstein has built Binghamton University Community Schools into a nationally and internationally renowned entity and is currently leading its adaptation across SUNY's 64 campuses. In 2023, she was cited among the top 2% of scholars in her field in the Stanford World Scientist and University Rankings.

# Workshop Presentation: Keith W. Miller

## Internet Disinformation, Epistemology, and Education: Meeting the Challenges of Massive Lying

Monday, November 25, 2024 | 11:50-12:50 | Orion Hall (5F) & Online

*'Those who can make you believe absurdities, can make you commit atrocities.'* - Voltaire

In 2017, Schifffrin argued that disinformation on the internet was undermining democracy. More recently, Michaelis et al. (2022) researched corporations that spread disinformation to their advantage. Bontridder and Poulet (2021) asserted that artificial intelligence (AI) increases the quantity and effectiveness of disinformation on the web at large. With this trifecta at work and its ramifications growing exponentially, how can we as educators help our students to recognize and reject misinformation they encounter on the internet?

This workshop will lay out the groundwork for educators to better equip themselves in combating digital misinformation in and outside of the classroom by establishing and defending three claims: (1) Epistemology is a central issue in disinformation; (2) Disinformation is almost always an ethical violation; and (3) Educators can take practical steps to help their students identify, avoid, and combat internet disinformation. With these in mind, participants will be led through the five strategies for resisting disinformation as proposed by The Union of Concerned Scientists. The workshop will culminate in a discussion about the application of these strategies and sharing of ideas for other applicable cases, first using one example of web misinformation from the speaker, then using examples volunteered by participants.



### Keith W. Miller

Keith W. Miller is the Orthwein Endowed Professor for Lifelong Learning in the Sciences at the University of Missouri – St. Louis, United States. In that position, he is partnering with the St. Louis Science Center. Dr Miller's research interests are in computer ethics, online learning, and software testing. He is a past editor-in-chief of *IEEE Technology and Society Magazine*. He was awarded the 2011 Joseph Weizenbaum Award in Information and Computer Ethics by the International Society for Ethics and Information Technology (INSEIT), and is currently the President of that society. He has been a principal investigator of grants from the US National Science Foundation to study the effects of ethics education for computer science students, and to encourage scientists to become teachers.



**Panel Presentation: Héctor G. Ceballos, Kenneth Lo, Danny Bielik, Sean McMinn (Moderator)**

# **Navigating the Hype and Reality of Generative AI in Higher Education: Opportunities, Challenges, and Emerging Trends**

**Monday, November 25, 2024 | 14:20-15:20 | Orion (5F) & Online**

The rapid rise of Generative AI (GenAI) is reshaping teaching and learning in higher education. Universities are racing to integrate AI into their digital transformation strategies, with initial concerns focused on academic integrity now expanding to include topics such as AI literacy, ethics, misinformation, and data security. More recently, attention has shifted to potential challenges such as cognitive offloading and maintaining active learning in AI-driven environments. Amid these developments, much of the discourse is driven by hype from EdTech, government bodies, and sometimes higher education itself. Promises of personalised learning, AI-powered analytics, automated grading, and AI tutors are often highlighted, but they frequently overshadow established pedagogical-technological knowledge and ignore diverse institutional needs. Equitable and accessible education, especially for students with disabilities, must remain a priority in AI adoption.

This panel will critically assess the current state of AI in higher education, distinguishing between practical innovations and overblown expectations. Experts will explore how collaborations like the Digital Education Council (DEC) and the recently established Cyber-Physical Learning Alliance (CPLA) can help institutions develop informed, context-sensitive AI strategies. The discussion will also address broader trends, such as the shift to remote learning post-COVID, the rise of skills-based education, and the growing focus on digitisation in shaping future cyber-physical learning environments.



## **Héctor G. Ceballos**

Dr Héctor G. Ceballos is Director of the Living Lab & Data Hub of the Institute for the Future of Education (IFE) at Tecnológico de Monterrey, Mexico. He was previously head of the Scientometrics Office at the Research Vice-Rectorate of Tecnológico de Monterrey for 18 years. Dr Ceballos received a master's degree and doctorate degree in Intelligent Systems from Tecnológico de Monterrey in 2010. He is currently a faculty member of the university's Computer Science Graduate Program (DCC) and is ascribed to the IFE's Research Unit on Engaging and Motivating Learning Models. Dr Ceballos is a member of the Mexican National System of Researcher (SNI) and an adherent member of the Mexican Academy of Computing (AMEXCOMP). He is an Organizing

Committee Chair of the Special Interest Group in Learning Analytics in Latin America (LALA-SIG), the Society for Learning Analytics Research (SOLAR), and a member of the QS EduData Summit Advisory Committee. His main research interests include machine learning, data science, process mining, and causality, applied to research and learning analytics. He has authored more than 70 papers in journals and conferences worldwide and has worked as an expert consultant for bank and IT companies.



## Kenneth Lo

Dr Kenneth Lo is Director of the Office of Digital Learning and leads Cyber-Physical Learning (CPL) innovations at Singapore University of Technology and Design (SUTD), Singapore. His research involves digital learning technologies, innovative pedagogies, and ethics. Under the CPL Lab, Dr Lo is innovating and developing competency, tools, and systems for the future of education and sustainability in order to advance SUTD as a future-ready university that nurtures lifelong tertiary learners and innovators with its recent Education Design.AI.Technology (D.AI.Tech) initiative. Dr Lo has extensive experience in technology innovations, predictive machine learning, and designing engineering systems.



## Danny Bielik

Danny Bielik is the President of the Digital Education Council in Singapore and is passionate about access to high quality education and the positive impact that technology can have to achieve this. His work currently involves assisting universities and governments to better understand governance approaches to Artificial Intelligence (AI) in higher education. He believes that institutions of higher education should embrace datafication as one strategy to create stickier and more value-driven relationships with industry.

Mr Bielik has over 25 years of experience in leadership positions in higher education and technical and vocational training (TVET) organisations. He has extensive experience in strategy development, governance, and partnerships in higher education having run three tertiary organisations, as a director at peak bodies and serving as Ministerial Adviser in Education to the New South Wales Government in Australia.



## Sean McMinn (Moderator)

Dr Sean McMinn is the Director of the Center for Education Innovation at The Hong Kong University of Science and Technology (HKUST), Hong Kong. Previously, he served as Associate Professor and Director of the English Language Centre at The Hong Kong Polytechnic University (2020-2022) and held various academic roles at HKUST, including Associate Professor of Language Education and Co-Academic Director of the MA in International Language Education programme. As an early adopter of educational technologies, he has led initiatives in AI in education, blended learning, and fully online teaching modes. He currently serves on several international committees, including the AI and Education International Panel,

Digital Education Council, Cyber-Physical Learning Alliance, and EduTech Asia organising committee.



**Panel Discussion: Hongmin Anh, Yanhua Zhou, Joseph Haldane  
(Moderator)**

# **Community Engagement and Education in East Asia: From Preservations of Cultural Heritage to Practices of Contemporary Art**

**Tuesday, November 26, 2024 | 09:45-10:45 | Orion Hall (5F) & Online**

Recent community engagement and educational initiatives in East Asia actively aim to contribute to both the preservation of cultural heritage and the evolution of contemporary pedagogy. This panel engages in global interdisciplinary conversations on education, heritage, and community-building seen in two regional case studies of such initiatives connecting local practices with broader international trends. In Japan's case, Mr Hongmin Ahn focuses on the Shikoku Pilgrimage in Japan, demonstrating how regional and national educational programs advance cultural preservation and promote local pride while supporting Japan's UNESCO heritage recognition efforts. Dr Yanhua Zhou discusses a case study on the Handshake 302 art collective in Shenzhen, China, where art-geographic explorations serve as a means of engaging with migrant communities, resulting in the shaping of identity through contemporary art education. The panel ultimately calls for a rethinking of how we educate future generations in East Asia through community involvement, offering a timely reflection on the role of community-engaged art and education in addressing global challenges related to cultural preservation and social transformation.



## **Hongmin Anh**

Hongmin Ahn is an incoming student at the Inter-University Center for Japanese Studies in Yokohama, Japan (2024-25). He holds a Master of Theological Studies in Buddhism from Harvard Divinity School at Harvard University, United States, and a Bachelor of Arts in Religion from Bard College, also located in the United States. As an interdisciplinary scholar, Mr Ahn's research focuses on modern transnational Buddhism in Korea and Japan, exploring their history, culture, practices, gender dynamics, and institutions such as clerical marriage and the popularisation of Buddhism through military chaplaincy.

Supported by IAFOR grants, Mr Ahn's forthcoming ethnographic study on Japan's Shikoku Island will examine Buddhism's socio-economic and demographic changes, particularly evolving female leadership and ageing, declining populations. His work seeks to bridge the gap between academic research and contemporary religious realities, offering insights into how Buddhist communities navigate and adapt to rapid social changes throughout East Asia.



## Yanhua Zhou

Dr Yanhua Zhou is currently a Professor of Art History at the Research Center for Visual Art, Sichuan Fine Arts Institute, China. She is also affiliated as a Professor of Contemporary Chinese Art and Gender and Associate Director of Wanwu Art Research Lab at the Department of East Asian Studies, University of Arizona, United States. Born in Chongqing, China, Dr Zhou completed her PhD in East Asian Studies with a focus on Chinese Anthropology from the University of Arizona and her MA in Art History from the University of St Andrews, United Kingdom. Taking an interdisciplinary approach combining art history, anthropology, area studies, and cultural studies, her research focuses on the issue of art and geographic

politics of contemporary art in Asia, global socially engaged art in a transnational context, affective infrastructural studies, and non-human agency in art.



## Joseph Haldane

Dr Joseph Haldane is the Founder, Chairman, and CEO of IAFOR. He is responsible for devising strategy, setting policies, forging institutional partnerships, implementing projects, and overseeing the organisation's business and academic operations, including research, publications, and events.

Dr Haldane holds a PhD from the University of London in 19th-century French Studies, and has had full-time faculty positions at the University of Paris XII Paris-Est Créteil (France), Sciences Po Paris (France), and Nagoya University of Commerce and Business

(Japan), as well as visiting positions at the French Press Institute in the University of Paris II Panthéon-Assas (France), The School of Journalism at Sciences Po Paris (France), and the School of Journalism at Moscow State University (Russia).

Dr Haldane's research and teaching is on history, politics, international affairs, and international education, as well as governance and decision making. Since 2015, he has been a Guest Professor at The Osaka School of International Public Policy (OSIPP) at Osaka University, where he teaches on the postgraduate Global Governance Course, and is Co-Director of the OSIPP-IAFOR Research Centre, an interdisciplinary think tank situated within Osaka University.

A Member of the World Economic Forum's Expert Network for Global Governance, Dr Haldane is also a Visiting Professor in the Faculty of Philology at the University of Belgrade (Serbia), a Visiting Professor at the School of Business at Doshisha University (Japan), where he teaches Ethics and Governance on the MBA programme, and a Member of the International Advisory Council of the Department of Educational Foundations at the University of Hawai'i at Mānoa's College of Education (United States), collaborating on the development of the Global PhD programme.

Dr Haldane has given invited lectures and presentations to universities and conferences around the world, including at the United Nations Headquarters in New York, and advised universities, NGOs, and governments on issues relating to international education policy, public-private partnerships, and multi-stakeholder forums. He was the project lead on the 2019 Kansai Resilience Forum, held by the Japanese Government through the Prime Minister's Office and the Cabinet Office in collaboration with IAFOR.

From 2012 to 2014, Dr Haldane served as Treasurer of the American Chamber of Commerce in Japan (Chubu Region) and he is currently a Trustee of the HOPE International Development Agency (Japan). He was elected a Fellow of the Royal Asiatic Society in 2012, and a Fellow of the Royal Society of Arts in 2015.





# The Forum Global Citizenship: Local Communities and the Academy

**Moderators: Laura Bronstein, Melina Neophytou**

**Tuesday, November 26 | 11:00-12:00 | Orion Hall (5F) & Online**

The practical application of global citizenship education remains one of the most complex issues facing education today. At a previous Forum session in London, participants argued that students will hardly care about global issues if they are disconnected from their own local communities. According to these delegates, lack of attachment or sense of belonging to the local community desensitises people to the plight of others. Bridging the gap between the local and global world could be the key to fostering conscious global citizens.

Educators have attempted to remedy this issue in recent curricula, developing community-assisted curricula, including projects involving welfare, town planning, festivals, and other hands-on activities. In Japan, 58.3% of public elementary and junior high schools currently operate community school systems since the nation's educational reform in the 1990s (also known as 'The Quiet Revolution'), according to the Ministry of Education, Culture, Sports, Science and Technology. This approach has since spread to several Asian countries and is considered a powerful innovation in school reform. These developments highlight spaces in which education can occupy to make a difference in local and global communities.

With a broader vision of the world, higher education is in an advantageous position to bridge the gap between the local and the global. However, even though embedded within local realities, universities today face the risk of turning into ivory towers: secluded, privileged spaces that avoid local issues with an escapist attitude. How can we reconcile these so-called 'towns and gowns' and foster a sense of shared responsibility between higher educational institutions and the local community? Discussions from The Forum at ACE2024 can help form the key to implementing global citizenship education effectively.

IAFOR invites delegates to join The Forum at ACE2024 to discuss community-assisted education, the university's role within the local community, and how local communities and the Academy can work together to make a difference in the world.



## Melina Neophytou

Dr Melina Neophytou is the Academic Operations Manager at IAFOR, where she works closely with academics, keynote speakers, and IAFOR partners to shape academic discussions within The Forum, bring conference programmes together, refine scholarship programmes, and build an interdisciplinary and international community. She is leading various projects within IAFOR, notably The Forum discussions and the authoring of Conference Reports and Intelligence Briefings, and she oversees the Global Fellows Programme.

Born in Germany and raised in Cyprus, Dr Neophytou received her PhD in International Development from Nagoya University, Japan, in 2023, specialising in political sociology, the welfare state, and contentious politics. She received an MA in International Development from Nagoya University, with a focus on Governance & Law, and a BA in European Studies from the University of Cyprus, Cyprus.

Her research interests currently focus on the Japanese welfare state, family values within Japanese society, and their relationship to family policies. She is particularly interested in state-society relations by uncovering how informal social ideas influence formal social policy.

## Laura Bronstein

See page 44 for biography





# IAFOR events are among the most **diverse** on earth

Bridging divides of **nation**, **culture**, and **discipline**; informing and shaping ideas, research, practice, and policy in a comparative and contrastive space, IAFOR encourages the sharing and nurturing of diverse ideas.

Over the past year, more than 5,000 delegates from more than 120 countries have participated in an IAFOR event.



**5,000+**  
Delegates



**120+**  
Countries

Inspiring global collaborations, this diversity of peoples, nations, voices, cultures, and ideas is at the heart of what we do.

**It is our greatest strength. Join us.**





**Featured Workshop Presentation: Yanhua Zhou**

# **Featured Workshop: Teaching Ethnography by Walking: Pedagogy in Action**

**Wednesday, November 27, 2024 | 16:45-17:35 | Toshi Center Hotel, Room 604 (6F)**

This workshop explores how ethnographic pedagogy can be reimagined through the practice of walking. By introducing her principal teaching and research project, 'Field in Action', in which students conducted research by walking across both rural and urban areas of China, Professor Zhou will demonstrate how walking reawakens the sensory capacities of our bodies – to see, listen, touch, and smell – during fieldwork. Participants' bodies interact with landscapes, infrastructures, plants, insects, and both human and non-human species while walking: these sensory experiences challenge the traditional ethnographic approach, which often positions the observer as silent, invisible, and passive. Reclaiming the act of walking highlights the importance of bodily engagement in fieldwork, prompting a reconfiguration of ethnographic methods by recognising the active role of the body in the field.

This workshop adopts an interdisciplinary approach, incorporating anthropology, cultural studies, pedagogy, and performance. The workshop aims to:

Encourage participants to reconsider ethnographic methods by introducing the embodied experiences of walking.

Present ethnographic case studies that invite participants to rethink the capabilities of the body and how these shape their fieldwork observations.

Foster interdisciplinary and cross-cultural networking opportunities for participants from diverse fields, including, but not limited to, anthropology, art, performance, and cultural studies.

## **Workshop Schedule**

16:45-16:50	Opening and Introduction
16:50-17:05	Case Study
17:05-17:20	Group Work
17:20-17:30	Sharing Outcomes of Group Work
17:30-17:35	Wrap up and Closing

## **Yanhua Zhou**

See page 46 for biography



**Online Featured Panel Presentation: Susie Kung, Kylie Smith, Karin Avnit, Fiona Westbrook**

# **Navigating AI in Higher Education: Multiple Perspectives from Policy to Practice**

**Friday, November 29, 2024 | 08:00-09:00 | Online via Zoom**

Education is continuously in a state of flux within the wider context of globally-accelerated change. The undeniable increasing reach of Artificial Intelligence (AI) has had a huge impact on higher education. While the use of AI-mediated technologies has revolutionised higher education, it also poses significant challenges that raise ethical, epistemic, and academic integrity concerns. This panel examines the complex nature of AI and proposes that discourses about the AI-mediated higher education landscape at the grassroots level requires rethinking of AI as either a delineated technology or just another technological innovation to enhance teaching and learning. Instead, it should be understood as a complex system that requires in-depth understanding, informed planning, and agile integration into the curriculum.

This panel also addresses issues of accountability, shifting authority and agency, as well as the ethical issues surrounding the use of AI in higher education. It will provide some insight into how AI-mediated technologies are understood and currently used in higher education. The discussion also provides a platform for scrutinising the role of AI in higher education from multiple perspectives, specifically policy makers, educational leaders, and practitioners/educators. The panel will also shed light on how policy makers, educational leaders, and practitioners/educators collaborate to safeguard the responsible and appropriate use of AI technologies in higher education. It is envisioned that this panel discussion will serve as a catalyst for further discussion on a more refined understanding of AI as a tool that facilitates learning through the augmentation of human cognition and AI hybrid, promoting a more critical, well-balanced position on the potential and challenges of integrating AI in the real world of practice. This discourse will have significant implications for higher education due to its shaping policy and practice on the appropriate use of AI at the grassroots level.



## **Susie Kung**

Susie Kung has been in education since 1980 and in teacher education for over 26 years. She has been teaching within the Bachelor of Education programme at The Manukau Institute of Technology, New Zealand, since 2006. She is a Senior Lecturer attached to the School of Education and is also the Academic Lead overseeing the provision of pastoral care, as well as the retention and success of four programmes in the Institute's School of Education. She has substantial experience in the field both in Malaysia and New Zealand. Ms Kung's passion for teacher education includes her research on effective tertiary teaching-learning spaces and, more recently, blended teaching-learning environments during the COVID-19 pandemic; teacher identity and teacher motivation, preparing student teachers for a fast-changing, diverse world, and a reconsideration of teacher education as a holistic endeavour. Case study and narrative approaches to research are her methodologies of choice, but she has a special interest in the Appreciative Inquiry approach to research and has used this methodology for a number of her research projects. She is currently investigating the role of teacher identity, teacher motivation, and the teacher's perception of advocacy in the teaching role.

preparing student teachers for a fast-changing, diverse world, and a reconsideration of teacher education as a holistic endeavour. Case study and narrative approaches to research are her methodologies of choice, but she has a special interest in the Appreciative Inquiry approach to research and has used this methodology for a number of her research projects. She is currently investigating the role of teacher identity, teacher motivation, and the teacher's perception of advocacy in the teaching role.



## Kylie Smith

Kylie Smith is Head of School – Education and Social Work at Manukau Institute of Technology (MIT), New Zealand. She has dedicated over 25 years to education and teaching, beginning her career as a teacher of children before transitioning to teaching adults MIT for the past 13 years. Her academic journey and research interests have consistently centred around fostering her own love of learning and supporting others in their own educational pursuits. Dr Smith's Master of Education thesis focused on the practical implementation of mixed-age communities of learning. She is deeply committed to the Māori values of whakamana (empowerment/enablement) and pono (integrity); these principles guide her educational approach, fostering genuine and connected

relationships with students and colleagues. As the current Head of School – Education and Social Work at MIT, she leads a diverse group of tertiary educators. Her leadership focuses on bringing out the best in each team member, creating a high-performing, goal-oriented team that places ākonga (students) at the heart of all they do while aligned to the same core values. Dr Smith is passionate about promoting excellence and ensuring that ākonga are well-prepared for their professional journeys.



## Karin Avnit

Karin Avnit is an Associate Professor at the Singapore Institute of Technology (SIT), Singapore. She is a faculty member in the university's Infocomm Technology cluster as well as Deputy Director (EdTech) in the SIT Teaching and Learning Academy (STLA), where she works with a team of educational developers, educational technologists, and software developers to support and equip educators in the adoption of technologies for teaching and learning. Professor Avnit advises the university on the framework, policies, and practices related to the use of generative Artificial Intelligence in the university. Her research and work as an educator

at STI has garnered awards: she is the recipient of SIT's Teaching Excellence Award (2015, 2017, 2019) and a member of the Teaching Excellence Award Honour Roll (2018, 2020).



Online Featured Panel Presentation: Murielle El Hajj Nahas, Leandro Loyola, Ya-Ling Wang

# Blended Learning: Overcoming Challenges and Implementing Solutions

Friday, November 29, 2024 | 14:45-15:45 | Online via Zoom

The COVID-19 pandemic has significantly transformed the educational model, leading to the widespread adoption of blended learning, where students engage in both face-to-face and online instruction. This panel explores the evolution of blended learning as a typical educational trend, examining its potential to revolutionise traditional classroom settings by integrating innovative teaching methods. Despite its promise, the blended learning model presents unique challenges, particularly in engaging both in-person and online students simultaneously while adhering to high-quality teaching standards. Central to this discussion is the need to maintain a student-centred approach, where learners actively participate in the teaching/learning experience regardless of their physical location. Critical issues educators face when implementing the blended learning model will be addressed, particularly efforts to ensure equitable access to learning resources, fostering meaningful interactions among all students, and aligning instructional strategies with pedagogical best practices. Furthermore, this panel aims to provide efficient solutions and best practices to enhance the effectiveness of this educational model as well as the challenges inherent in blended learning. Panellists will offer strategies for creating cohesive learning experiences that bridge the gap between in-person and online students, thereby fostering an inclusive and interactive environment that supports student engagement and academic success. By focusing on both the obstacles and the opportunities presented by blended learning, this panel seeks to equip educators with the tools and insights necessary to optimise this educational model in a post-pandemic world.



## Murielle El Hajj Nahas

Dr Murielle El Hajj Nahas holds a PhD in French Language and Literature from the Lebanese University, Lebanon. She is currently Assistant Professor and Director of Lusail University Press (LU Press) at Lusail University, Qatar. She also serves as Associate Editor of the *IAFOR Journal of Literature & Librarianship* and the *IAFOR Journal of Education* (Language Learning in Education issues), The International Academic Forum (IAFOR), Japan, as well as Editorial Board Member of *In Analysis, revue transdisciplinaire de psychanalyse et sciences* (Elsevier Masson SAS, France). Her domain of research focuses on psychoanalysis of literature, the perspective on the unconscious in literary study, the roles of the instances involved in analytical/critical praxis, and the relation between literature and psychoanalysis. Her research interests include analysis of written narrative structure and

focalisation; comparative studies of literary genres; discourse analysis and semantics; French linguistics, literature, modernism, and postmodernism studies; gender studies; literary semiotics and semiology; psychoanalysis; psychoanalytic criticism and textanalysis; rhetoric and stylistics; and schizoanalysis. She has published book chapters, original articles, academic interviews, translated articles, book reviews and analyses, as well as poems. She has also authored a contemporary theatre book titled, *Fragments chaotiques* published by Les impliqués Éditeur, France.



## Leandro Loyola

Dr Leandro A. Loyola is currently an Associate Professor at the Department of Management and Organization of the Ramon V. del Rosario College of Business of De La Salle University, Philippines. He also served as Director of College Student Affairs at the De La Salle University Laguna Campus. Dr Loyola is the Immediate Past National President of the Philippine Association of Practitioners of Student Affairs and Services (PAPSAS), Inc. He is also active with international student affairs and services groups being the President-elect of the Asia Pacific Student Services Association (APSSA) and as Regional Director for Asia of the International Association of Student Affairs and Services (IASAS). He consistently imparts his

expertise in developing professionally competent and socially responsible students to become global citizens and leaders. His research interests include Student Development and Welfare, Leadership, Management, and Organization Development.



## Ya-Ling Wang

Dr Wang is currently a Distinguished Associate Professor in the Department of Adult & Continuing Education at the National Taiwan Normal University, Taiwan, and the Director of National Taiwan Normal University Online. Her primary research interests are the psychology of the elderly, digital learning, and social psychology. She is dedicated to applying theories and techniques related to social cognition and digital technology to adult education and better living. When it comes to the field of adult education and learning, learners and autonomous motivation, both intrinsic and extrinsic, are prefactors for explaining various conditions of adult learning. Accompanying the increasing demand and acceptance of digital

technology among adult learners, Dr Wang's current research advocates for older learners to achieve better learning effectiveness and psychological adjustment via digital technology or information media. Aside from this, her research also focuses on promoting intergenerational learning and sharing through the use of board games.



# Introducing the IAFOR Research Centre at Osaka University, Japan

The IAFOR Research Centre (IRC) is a politically independent, international and interdisciplinary think tank based at the Osaka School of International Public Policy (OSIPP), at Japan's Osaka University, that conducts and facilitates international and interdisciplinary research projects. The main focus is to encourage mutual international and intercultural understanding and cooperation in line with IAFOR's mission of encouraging interdisciplinary discussion, facilitating heightened intercultural awareness, promoting international exchange, and generating and sharing new knowledge.

The IRC helps to nurture and capacity build by encouraging students to take part in international conferences and research projects, in line with the Osaka University's Global 30 commitments from Japan's Ministry of Education, Culture, Sports, Science and Technology (MEXT).

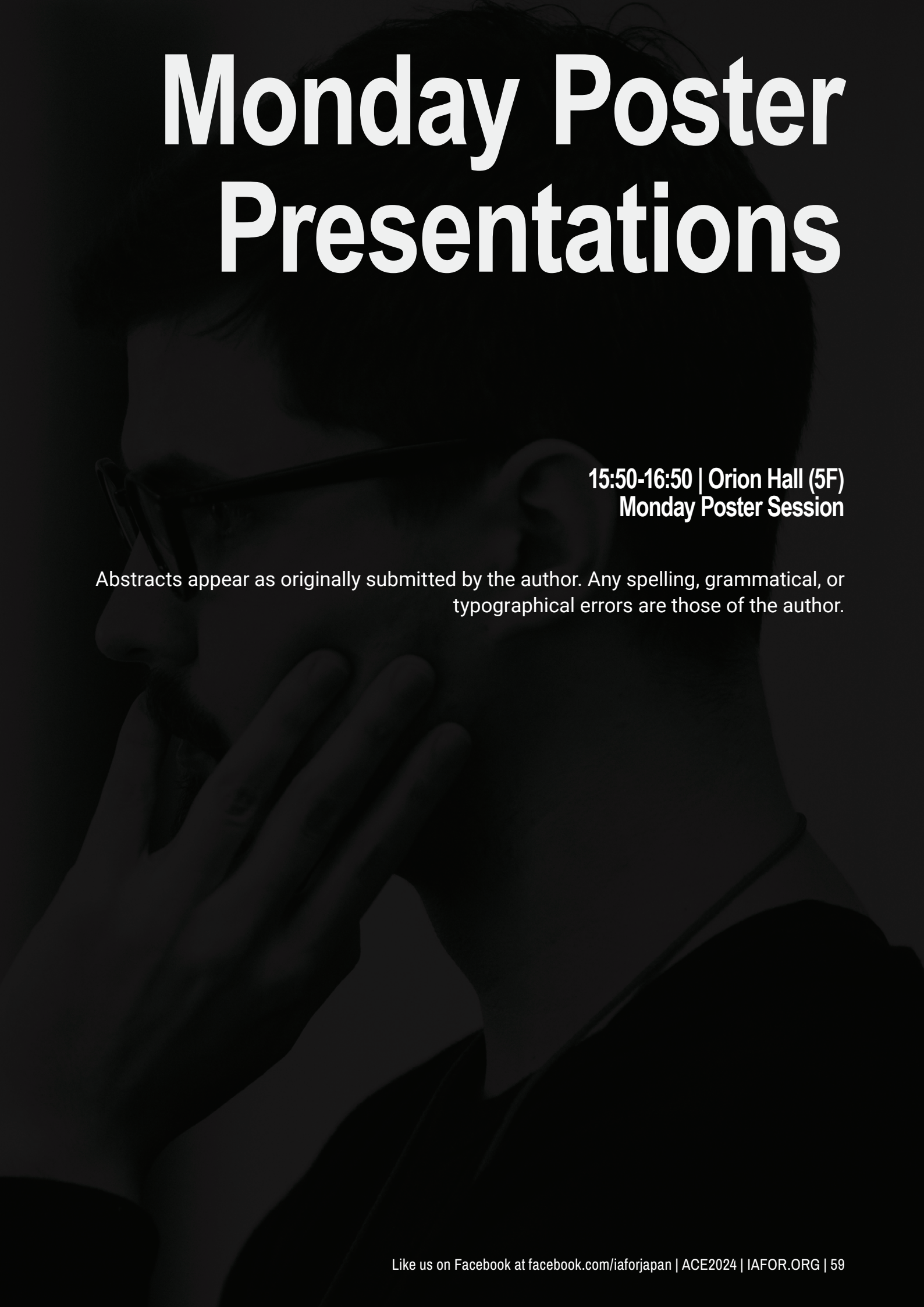
For more information about the IAFOR Research Centre visit:  
[www.osipp.osaka-u.ac.jp/iaforresearchcentre/](http://www.osipp.osaka-u.ac.jp/iaforresearchcentre/)



THE IAFOR RESEARCH CENTRE  
OSAKA SCHOOL OF INTERNATIONAL PUBLIC POLICY  
OSAKA UNIVERSITY

大阪大学大学院国際公共政策研究科OSIPP  
IAFOR研究センター





# Monday Poster Presentations

**15:50-16:50 | Orion Hall (5F)  
Monday Poster Session**

Abstracts appear as originally submitted by the author. Any spelling, grammatical, or typographical errors are those of the author.



# 15:50-16:50 | Orion Hall (5F)

## Monday Poster Session

### Adult, Lifelong & Distance Learning

84739 | *An Exploration of Creative Aging and Intergenerational Learning Among the Elderly Through Community-Based Picture Books*  
Shiang-Fu Lu, National Taiwan Normal University, Taiwan

The development of public health and medical advancements has enabled humans to live longer. By 2025, Taiwan's elderly population will account for more than 20% of the total population, officially entering a "super-aged society." How to intervene earlier to promote the physical and mental health of the elderly and enable them to actively face old age is a topic that needs to be explored under the aging wave. This study takes Huanmin Village, Toad Mountain, Kong-Kuan, Taipei City as an example to explore how the community extracts local elements to develop stories and create community picture books. The elderly can create community picture books by co-creating them as a creative practice plan for aging and local aging. They then go to nearby schools to tell children the story of this land, achieving generational communion. Using the existing data to analyze the theme, the conclusions are as follows: First, the co-creation of community picture books enhances the sense of community cohesion; Second, the elderly have a complete life experience through the process of art creation; Third, the elderly gain happiness and enhance their self-worth through intergenerational learning.

85560 | *Use Eye Movement Features to Explore the Impact of Language Features on Text Difficulty*  
Yi-Ju Chan, National Taiwan University of Science and Technology, Taiwan  
Hou-Chiang Tseng, National Taiwan University of Science and Technology and National Taiwan University of Science and Technology  
Empower Vocational Education Research Center, Taiwan  
Yao-Ting Sung, National Taiwan Normal University, Taiwan

The concept of lifelong learning posits that learning should persist until the end of life. Indeed, reading can not only enrich the lives of the elderly, but also assist them in adapting to the aging process. Nevertheless, the process of ageing can result in a decline in cognitive abilities and an impairment of memory. It is therefore of significant importance to provide appropriate text materials for the elderly. In this context, numerous scholars have investigated the relationship between eye movement indicators and text difficulty. Nevertheless, previous research has not fully mapped eye movement indicators to linguistic features, which is an impediment to article writers in judging the difficulty of an article and writing it. Accordingly, this study employs an eye tracker to observe the reading behaviour of elders when reading texts of varying degrees of difficulty, and extracts eye movement indicators to examine the difficulties encountered by older individuals with differing reading abilities throughout the reading process. Finally, Chinese Readability Index Explorer employs computational linguistic analysis to examine the linguistic features of these sentences and words, and to elucidate the reasons why these linguistic features present reading challenges for elders. This study proposes a specific correlation between eye movement indicators and text difficulty and provides new perspectives and methodological support for future eye movement research. The findings of this study can be applied to the cognitive health management of the elderly, with the objective of improving the quality of life of this demographic and promoting lifelong learning.

85548 | *A Phenomenological Study on Opportunities and Challenges in HyFlex Science Teaching: Basis for Evaluation Tool Development*  
Joanoreen Ruth Almeda, Miriam College (Nuvali), Philippines

This study explores the challenges and opportunities of the Hybrid-Flexible (HyFlex) teaching modality at Miriam College Nuvali, with the goal of improving its implementation. Focus group discussions and interviews with students and teachers were conducted, resulting in the development of evaluation instruments. The findings indicate that students face challenges such as unstable internet connectivity, collaborative learning difficulties, time management issues, and differences in learning experiences. Teachers also encounter challenges related to internet connectivity, conducting learning experiences, and formulating assessments. On the other hand, both teachers and students identify several opportunities, including the development of digital tools and technologies, the flexibility of choosing between online and on-site learning, and the enhancement of teaching strategies. The conclusions highlight the importance of considering multiple perspectives in understanding the impacts of HyFlex modality and emphasize the need for investment in digital literacy, infrastructure, and virtual laboratory applications.

88636 | *The Roles of Social Support Chatbots for the Elderly: Conversational Partner, Educational Resource, and Interactive Learning Partner*  
Ya-Ling Wang, National Taiwan Normal University, Taiwan  
Yi-Ting Chuang, National Taiwan Normal University, Taiwan

Population growth and changing family structures have increased social isolation among the elderly, making it a global issue. Fortunately, recent advancements in artificial intelligence (AI) have offered promising solutions. This study developed a chatbot integrated with the LINE application, utilizing social support technology to provide interactive engagement for the elderly. The study conducted a one-week human-computer interaction experiment in June 2023, collecting a total of 282 responses from eight older adult participants (mean age = 66 years, SD = 3.2), including four men and four women. The results revealed that interactions between the elderly and the chatbot can be classified into six categories: Agreement and Disagreement (AD, 38.1%), Questions and Answers (QA, 19.9%), Greetings and Descriptions (GD, 18.1%), Compliments and Affirmations (CA, 10.0%), No Response (NR, 7.5%), and Emotions and Feelings (EF, 6.4%). The results integrate six interaction categories to emerge three primary findings. First, elderly users perceive the chatbot as a conversational partner (GD and EF), initiating greetings, which indicates the chatbot's role as an interactive entity. Second, elderly users regard the chatbot as an educational resource (QA and CA). Interactions often conclude with praise and gratitude, distinguishing the chatbot from typical information retrieval tools. Finally, elderly users demonstrate independent thinking by evaluating chatbot information and cross-referencing it with other sources, illustrating the chatbot's role as an Interactive Learning Partner in a bidirectional learning process.

# 15:50-16:50 | Orion Hall (5F)

## Monday Poster Session

88633 | *Enhancing Elderly Engagement with Chatbots: From Life Listeners to Learning Resource Providers*

Ya-Ling Wang, National Taiwan Normal University, Taiwan

Yuchun Mao, National Taiwan Normal University, Taiwan

As the population ages, chatbots are increasingly becoming vital tools for older adult learners, not only as platforms for sharing their life stories but also as resources for learning. These digital companions make learning more accessible and enable seniors to narrate their experiences. However, older adult learners often find it difficult to express their emotions during interactions with chatbots. Therefore, this study seeks to explore the potential roles that chatbots can play in engaging with older adult learners. In this study, we collected 190 conversation records from six elderly participants (three males and three females) with an average age of 69.5 years, who interacted with a chatbot over the course of a week using a mobile app. The results from all conversation with the chatbot revealed five patterns: shared life experiences, Q&A interactions, expressions of gratitude, emotional expressions, and ineffective responses. The findings suggest that due to their unfamiliarity with technology, older adult learners predominantly share life experiences (34.2%) and rarely express emotions (2.1%), underscoring chatbots as effective life listeners. Moreover, older adult learners appear to accept chatbots as learning resource providers, as shown by their frequent Q&A interactions (14.8%) and expressions of gratitude (12.6%). This study suggests developing specialized educational programs to help older adult learners how to effectively converse with chatbots, reinforcing their role as Life Listeners and expanding their function as Learning Resource Providers, thereby boosting seniors' participation and confidence in the digital society.

88577 | *Investigating Older Adult Learners' Contradictory Learning Experiences with Podcasts for Learning Enhancement*

Ya-Ling Wang, National Taiwan Normal University, Taiwan

I Jou Tan, National Taiwan Normal University, Taiwan

Podcasts are globally popular and widely used for adult education. In Taiwan, technology courses and podcast channels for older adults are flourishing. Older adults show interest and enjoyment in rediscovering favorite shows through podcasts, but they also have concerns about phone storage and operational errors. While previous podcast research has primarily focused on youth education, this study explores the contradictory factors associated with podcast learning for older adults. The qualitative study used semi-structured interviews and purposive sampling. We recruited 8 participants with an average age of 73.88 years (SD = 6.7) from the community, 4 having experience using podcasts and 4 without, evenly split by gender. The coding framework was based on the Unified Model of the Paradox of Digital Learning for Older Adults developed by Wang (2020). Her model integrates both positive and negative factors with approach-avoidance conflict in digital learning, suggesting it is more suitable for older adult learners. The results identified four main coding themes: communication pathways (e.g., mass communication, interpersonal communication), positive learning experiences (e.g., autonomy satisfaction, perceived usefulness), negative learning experiences (e.g., negative digital cognition, disappointing program quality), and worries and reservations (e.g., get scammed). In addition, older adult learners with experience using podcasts described more positive learning experiences, while those lacking podcast experience faced more challenges. Therefore, it is essential to encourage the older adult to engage more with digital technology, such as podcasts, to access a variety range of learning opportunities.

88400 | *Exploring Middle-Aged and Older Learners' Participation in Online Intergenerational Courses: The Roles of Internet Proficiency and Attitude Toward Younger Generations*

Li Chi Lee, National Taiwan Normal University, Taiwan

Ya-Ling Wang, National Taiwan Normal University, Taiwan

Advances in technology and an aging society, accelerated by the pandemic have recently propelled the development of emerging educational models such as online intergenerational courses. However, previous research has found that middle-aged and older adults often have low familiarity with internet operations and exhibit lower connectivity across different generations. Accordingly, the aim of the study is to understand their willingness to participate in intergenerational online courses. This study used a questionnaire survey method to purposively sample adults aged 45 and above in Taiwan. A total of 114 participants were gathered, consisting of 39% men and 61% women. The average age is 53.74(SD=8.02). The research employed instruments including a Internet self-efficacy scale, an attitude scale towards younger generations, an elderly version of intergenerational communication scale a scale measuring importance and satisfaction, and a willingness to participate scale. The current results indicated that general self-efficacy in internet operations and communicative self-efficacy were positively correlated with participation in online intergenerational courses. This suggests that older adults who are more familiar with internet operations are more willing to participate in online courses. Furthermore, positive impressions of university students and interactions with them, as well as interactions with younger family members, were also positively correlated with participation in intergenerational online courses. This implies that better impressions of younger generations and positive interactions increase willingness to engage in intergenerational courses online. Therefore, familiarity with internet operations and positive perceptions or interactions with university students both enhance the willingness to participate in online intergenerational courses.



# 15:50-16:50 | Orion Hall (5F)

## Monday Poster Session

### Assessment Theories & Methodologies

85554 | *Filial Piety Perspective in Taiwan: A Rasch Differential Item Functioning Analysis of Sex, Generation, Education, and Interview Methods*

Shih-Wei Yang, National Chiayi University & Tainan University of Technology, Taiwan

Tsai-Wei Huang, National Chiayi University, Taiwan

Malcolm Koo, Tzu Chi University of Science and Technology, Taiwan

Filial piety is a fundamental ethical concept in Chinese culture and a core belief in family education. However, perceptions of filial piety vary based on sex, birth cohort, educational level, and administration modes, possibly due to differential responses to evaluation items among these groups. This study employed Rasch Item Information Functions to conduct a Differential Item Functioning (DIF) analysis on the RR2022 data from the Taiwan's Panel Study of Family Dynamics (PSFD). The analysis examined whether responses to items assessing filial piety perspectives differed by sex, birth cohort (Baby Boomers, Generation X, Y, Z), educational level (high school or below, college, postgraduate), and administration modes (audio interview, video interview, online self-administration). Results indicated that the item "A daughter should frequently visit her parents after marriage" exhibited DIF based on sex, birth cohort, educational level, and administration mode. The item "Regardless of how poorly your parents treat you, you should still treat them well" showed DIF based on birth cohort and educational level. The items "Abandon personal aspirations to fulfill parental wishes" and "Have at least one son to continue the family line" exhibited DIF based on birth cohort. Moreover, even after removing these four items that exhibited DIF, differences in filial piety perspectives still existed across groups defined by sex, birth cohort, educational level, and administration mode. In conclusion, while differential responses due to sex, birth cohort, educational level, and administration mode exist, these factors do not fully explain the variations in filial piety perspectives among different groups.

### Challenging & Preserving: Culture, Inter/Multiculturalism & Language

87785 | *Effective Educational Methods for Fostering Multicultural Coexistence Mindsets Among Students: Experiments in Junior College Courses*

Misa Otsuka, Jissen Women's Junior College, Japan

In Japan today, the number of foreign residents is increasing at an unprecedented rate. According to a report by the Nikkei in March 2024, the number of foreigners living in Japan is 1.5 times higher than previously estimated, with projections suggesting that by 2050, foreigners could constitute 10% of the population. As Japan approaches a truly multicultural society, it is crucial to explore effective interventions for university students—particularly those who are not specializing in multicultural studies—before they enter the workforce. The question arises of whether a single or a few sessions in non-international relations courses can be effective and how the outcomes of such initiatives can be evaluated. This presentation investigates the effectiveness of these interventions in addressing the aforementioned research questions. It will report on initiatives undertaken in junior college courses during the 2023 and 2024 academic years, focusing on two key approaches: "Easy Japanese" (simplified Japanese designed for non-native speakers) and "3rd Person Response" (Ostheider, 2005; a strategy where the speaker addresses a third party in the presence of the interlocutor, based on extra-linguistic factors). Building upon the initial year's findings, the second year incorporated guest speaker sessions and innovative role-playing activities. The presentation will detail the outcomes of these enhancements and facilitate discussions on interpreting student survey data and refining the program's effectiveness. Participants will be encouraged to contribute insights and explore additional improvement strategies.

### Curriculum Design & Development

85556 | *Research on the Application of Affirmative Inquiry to Design of Sexual Assault Prevention Courses for Aboriginal Children*

Yuchia Chiu, Shu-te University, Taiwan

In the past ten years, among Taiwan's aboriginal minor population, aboriginal people only account for 3.5%, but among children who have been sexually abused, aboriginal people account for more than 12%, and as high as 14.7% in 2023, showing that indigenous children are high likely to be sexually abused. In order to further bring sexual assault prevention knowledge and sexuality education to aboriginal tribes, this study combined with the "Aboriginal Tribes Sexuality Education Teaching Plan" of Shu-Te University to recruit six sexuality education teachers to train students, using the 4D cycle model of affirmative inquiry strategy to distinguish four aspects of "discovering strengths", "shaping the vision", "sharing design" and "practical innovation" to discuss the design of sexual abuse that meets the needs of indigenous children prevention and treatment courses. Finally, this study also proposes practical application and future research basis for community sex education.

# 15:50-16:50 | Orion Hall (5F)

## Monday Poster Session

### Design, Implementation & Assessment of Innovative Technologies in Education

86066 | *Designing an Educational Board Game Combined with Spherical Video Virtual Reality Scaffolding Mechanism for Learning Inhaled Drug Therapy*

Tzu-Pei Wang, National Taiwan University of Science and Technology, Taiwan  
Huei-Tse Hou, National Taiwan University of Science and Technology, Taiwan

Inhalation therapy training encounters several challenges, primarily due to the intricate variety of drug types and methods of administration. These complexities often lead to cognitive overload and diminish student motivation. Moreover, there is a noticeable absence of effective contextual interaction and practical application scenarios within educational settings. To tackle these issues, this study introduces a tabletop educational game that incorporates Spherical Video Virtual Reality (SVVR) to authentically simulate clinical environments. The game involved 23 healthcare professionals, including physicians, pharmacists, respiratory therapists, specialized nurses, and medical students, who participated in the initial empirical evaluation. Participants were tasked with assessing and determining treatment regimens for two simulated patients concurrently, aiming to enhance their understanding of respiratory therapy medications and teamwork abilities. Results revealed that participants experienced high levels of flow, minimal anxiety, strong motivation, enjoyment, and expressed a desire to engage with the game again (all scores significantly above 3 on the 5-point Likert scale). Qualitative feedback also highlighted the effectiveness of the game relative to traditional courses in enhancing understanding of inhalation therapy concepts and clinical case evaluation.

86608 | *Designing a SVVR Educational Game to Cultivate Environmental Behavior Decision-Making Skills: A Case Study on Tropical Rainforest and Indigenous Issues*

Kang-Miao Cheng, National Taiwan University of Science and Technology, Taiwan  
Huei-Tse Hou, National Taiwan University of Science and Technology, Taiwan

Cultivating learners' environmental behavior decision-making skills is important for environmentally sustainable development. General lecture or discussion teaching methods lack realistic scenarios and interactivity in the experience design of environmental behavior decision-making. It is difficult to stimulate learners' motivation and enhance problem-solving abilities, leading to poor transfer of learning. To solve the above problems, this study designed an educational game with a realistic story context. The game employs game-based learning to promote learning motivation, combines Spherical Video-based Virtual Reality (SVVR) to provide realistic environments, and uses Google Forms to enhance interactivity to understand learners' environmental behavior decisions. In this game, learners can talk to non-player characters (NPCs) in a complex tropical rainforest SVVR and engage in visual and auditory exploration to learn ecological knowledge and understand indigenous culture and challenges. Google Forms are used to solve puzzles and collect information about their personal environmental behavior decisions. An empirical evaluation involving 20 Taiwanese high school students revealed high acceptance and high levels of flow for the game. This indicated that the game could promote learning engagement. After playing the game, learning effectiveness significantly improved, demonstrating the enhancement of knowledge acquisition. The results of the environmental behavior decision-making and environmental awareness assessments showed that the game effectively combines cognition and action. The learners were highly interested in exploring the rainforest and had negative feelings about the indigenous people's loss of homes. These results indicate that the game's realistic and interactive design can promote deeper understanding and experience and facilitate effective environmental behavior decision-making.

83652 | *Promoting Workplace Comprehension Through Mobile Situated Interactive Recruitment Game*

Pei-Ching Ngu, National Taiwan University of Science and Technology, Taiwan  
Mei-Chiung Fu, Sijhih Cathay General Hospital, Taiwan  
Chih-Chung Chien, National Taiwan University of Science and Technology, Taiwan  
Huei-Tse Hou, National Taiwan University of Science and Technology, Taiwan

Recruitment is an important key and strategic tool for businesses to gain competitive capital and advantages. Businesses should disclose more accurate information about internal conditions and real job previews in recruitment activities to help job applicants understand the work environment and make the right decision to seek employment. This study used the Thinglink® digital platform to design an educational game that simulates the working environment of a hospital nursing station. The learning objectives of the game are: Players take on the role of a new nurse who is soon to enter the workplace, and visit the hospital workplace. The game utilizes Google Forms' highly interactive situated questions and answers to allow the player to explore the salary and benefits as well as the realistic work environment. The study involved 22 nursing students over 18 years of age in Taiwan, and the results showed that the learners' mean scores on flow, game elements, and game feedback were significantly higher than the median on the five-point Likert scale (i.e., 3), and activity anxiety scores were lower than 3. In addition, the qualitative feedback indicated that the recruitment through situated interactive simulation game is vivid and interesting, and it gives the player a feeling of being in the real world and a more comprehensive understanding of the workplace environment. The information obtained from the interactive feedback can enhance the player's memory of important information, especially salary bonuses, annual leave, etc., which allows the player to consider in-depth the willingness to enter the hospital.



# 15:50-16:50 | Orion Hall (5F)

## Monday Poster Session

### 84224 | *Evaluation of a Financial Education Board Game Integrating Historical Contextual Events and Simulated Trading Mechanisms*

Zheng-Hong Pan, National Taiwan University of Science and Technology, Taiwan

Shen-Yang Ni, National Taiwan University of Science and Technology, Taiwan

Huei-Tse Hou, National Taiwan University of Science and Technology, Taiwan

The key to financial education is not merely financial knowledge, but more importantly, the skills of money investment and management. Without simulated financial operations and experiencing the effects of social contextual events on the market, learning transfer becomes challenging. Game-based learning provides a solution that motivates learners to engage actively, while also simulating contextual events, thus offering realistic experiences and feedback. By integrating real historical background events, learners can immerse themselves in a vivid trading scene. This immersive experience not only enhances the fun of learning but also facilitates historical empathy among learners, while simultaneously deepening their historical knowledge and financial skills. In our study, we developed a financial education board game set in 17th-century Europe, where learners played the role of the Dutchman. The game allowed learners to participate in the flower futures market, experiencing market fluctuations due to historical events and making investment decisions based on risk assessments. The empirical evaluation involving 16 participants indicated that the board game with historical contexts enabled learners to enter a state of flow and achieve focused learning. Moreover, learners found it beneficial to grasp the concepts of futures trading through the game. Furthermore, 80% of participants reported feeling immersed in the historical setting, and they were able to empathize the Dutch sentiments about the futures market at that time.

### 85034 | *Integrating Generative AI and Progressive Guided Scaffolding Mechanisms in Educational Games to Facilitate Research Design and Statistical Learning*

Yu-Kai Chu, National Taiwan University of Science and Technology, Taiwan

Yu-Chi Chen, National Taiwan University of Science and Technology, Taiwan

Chih-Chung Chien, National Taiwan University of Science and Technology, Taiwan

Huei-Tse Hou, National Taiwan University of Science and Technology, Taiwan

The teaching of quantitative research design in the social sciences is crucial, but learners' learning motivation are limited and there is a lack of more case studies and timely diagnostic guidance. Utilizing case scenarios and giving scaffolding guidance helps to address these limitations. In this study, we designed an educational game that combines case studies and progressive guidance on the Generative AI (GAI) scaffolding. This study develops an innovative scaffolding guidance module for GAI scripts. When a player asks a question, the player will not be told the answer directly. Instead, it gradually guides the player to find the research design problem and think in the direction of appropriate analytical methods. Learners play the role of an anxious graduate student facing a research bottleneck. For a limited time, he can have a discussion with the scaffolding guide to the NPC played by GAI.

A total of 18 people participated in the empirical evaluation of this study. The study found that learners had high flow, low anxiety, found the game fun during the game, and had a desire to play again. (All scores are significantly higher than 3, i.e., the median of the scale.) Learners felt that this game enhanced research design thinking more than the conventional curriculum. 72% of the participants felt that the game helped in understanding the concepts of the research design. 78% of the participants felt that the NPC characters would give guiding hints to help learners find the information they need to solve problems online.

### 84173 | *Combining Realistic Story Situations and GPT-Based Non-Player Character for Historical Problem-Solving Educational Games*

Cheng-Yuan Wei, National Taiwan University of Science and Technology, Taiwan

Yu-Chi Chen, National Taiwan University of Science and Technology, Taiwan

Chih-Chung Chien, National Taiwan University of Science and Technology, Taiwan

Huei-Tse Hou, National Taiwan University of Science and Technology, Taiwan

In recent years, the application of generative AI's (GAI) adaptive characteristics in education has rapidly emerged. However, general GAI in educational games often lacks realistic situations and operational fidelity, leading to limited authentic experiences and difficulties in learning transfer. Additionally, GAI frequently produces inaccurate or off-topic responses. To address these limitations, this study designs a historical education problem-solving game based on our previous framework of using GPT as an educational game Non-Player Character (NPC) (Chen & Hou, 2024). The game incorporates realistic story situations and reduces off-topic NPC responses. In the game, learners play as the close friend of a girl and collaborate with GPT-based NPC peers designed by the research team. They conduct online information searches within a limited time to find the historical period in which the girl disappeared and the name of the current building to save her. A total of 17 participants engaged in the empirical evaluation of this study. The study found that learners exhibited a high flow state, perceived the game as highly playable and enjoyable, and had a high acceptance of the game. Additionally, 70% of learners believed that the game helped with historical learning, and nearly 50% felt that it was closer to real human interaction compared to typical GPT conversations. The study demonstrates that a GPT-based NPC, enhanced with contextual stories and reduced off-topic responses, may effectively improve learners' gaming experience.

# 15:50-16:50 | Orion Hall (5F)

## Monday Poster Session

85582 | *Design and Evaluation of the Educational Board Game for Teaching Conservation of Momentum*

Trai Unyapoti, Srinakharinwirot University, Thailand  
Suwicha Wansudon, Srinakharinwirot University, Thailand  
Krirk Saksuparb, Srinakharinwirot University, Thailand  
Arunee Eambaipreuk, Kasetsart University, Thailand  
Thanida Sujarittam, Bansomdejchaopraya Rajabhat University, Thailand

This paper presents preliminary findings on an educational board game designed by the researchers. The game aims to enhance students' understanding of the concept of conservation of momentum through engaging and interactive gameplay, emphasizing hands-on learning. Tested in a classroom setting with undergraduate students, results show the game effectively improves understanding of conservation of momentum and boosts interest in physics. Students found the game satisfying and useful. Overall, the study emphasizes the potential of custom-designed board games as innovative tools for teaching complex scientific concepts.

84775 | *A Mobile Psychoeducational Intervention for Symptom-Management and Quality of Life of Women with Breast Cancer*

Jin-Hee Park, Ajou University, South Korea  
Sun Hyoung Bae, Ajou University, South Korea

This study aimed to evaluate the effectiveness of a mobile psychoeducational intervention on improving the symptom management and quality of life of patients with breast cancer. The participants were equally divided into control and intervention groups; those in the intervention group participated in a 12-week mobile psychoeducational intervention, which comprised education sessions, peer support groups, and recording a health diary. The outcome variables were symptom management and quality of life. Data were collected at baseline, after intervention, and three months after intervention, and compared using repeated ANOVA measurement. The basic characteristics were similar between the two groups. Participants in the intervention group exhibited significant improvements in symptom management ( $p = .028$ ) and quality of life ( $p = .015$ ) compared to control group. The mobile psychoeducational intervention is effective in reducing symptoms and improving the self-management and quality of life of patients with breast cancer who have completed primary treatment. Our findings provide evidence for the importance of psychoeducation interventions using mobile in improving the quality of life of patients with breast cancer and can be used in clinical settings or as a basis for future research.

85422 | *Developing Dual Language Literacy Apps to Enhance American Sign Language-English Vocabulary Acquisition*

Stephanie Yong, University of Alberta, Canada  
Lynn McQuarrie, University of Alberta, Canada  
Eric Lam, University of Alberta, Canada

Advancements in educational technology and the availability of numerous educational software products have significantly enhanced learning for students who are spoken language users; however, equivalent resources for Deaf learners, particularly in signed language acquisition (i.e. American Sign Language (ASL)), remain limited. We embarked on a collaborative design process involving Deaf children (ages 6-13), educators of Deaf children, research scientists, and interactive media developers to develop a suite of interactive dual language (ASL-English) educational applications. Our goal was to create engaging learning tools that foster signed language phonological awareness to enhance both sign (ASL) and written (English) vocabulary acquisition. Each app incorporates two gameplay modes: Picture-mode, which strengthens sign phonology-semantic connections (i.e., sign-vocabulary learning), and Text-mode, which bolsters sign phonology-orthography connections (i.e., print-vocabulary learning).

Iterative testing and refinement based on feedback from our target users and stakeholders was implemented, ensuring the apps are user-friendly and pedagogically effective. Compelling evidence of how signed language phonological skills supports Deaf children's language and literacy development is increasing (e.g., McQuarrie & Enns, in press; McQuarrie & Abbott, 2013; Holmer et al., 2016), helping to reinforce the benefit and efficacy of these tools in supporting dual language learning.

This presentation will highlight the design methodologies and implementation strategies of our ASL educational apps. Future plans include the adaptation of these apps to other world signed languages. Our initiative underscores the importance of inclusive and accessible educational technologies, aiming to bridge the gap in resources available for Deaf learners and contribute to their academic success.

84164 | *An Alternative Reality Museum Tour Game Integrating Realistic Historical Storyline and Role-Playing for Learning Cultural Heritage*

Shen-Yang Ni, National Taiwan University of Science and Technology, Taiwan  
Chih-Chen Kuo, National Taiwan University of Science and Technology, Taiwan  
Hung-Yu Chan, National Taiwan University of Science and Technology, Taiwan  
Huei-Tse Hou, National Taiwan University of Science and Technology, Taiwan

Although museums converted from cultural heritage are of high historical value, they may not be able to retain the old historical elements due to changes in business strategies and lose the historical value of the original scene. Museum tour guides may take visitors back to the past through oral tours, but there is still limited understanding due to insufficient information retained on site. Therefore, this study attempts to design an alternative reality museum tour game that combines simulated historical storylines and role-playing for a marine museum transformed from a thermal power station. Players can use their mobile phones to open the game and read the storylines to match the real historical scene in the museum park. Using first-person role-playing, players can walk around the existing museum park and explore the events of each historical site, interact with the virtual characters and solve the unexpected events that happened at the thermal power station at the time to immerse themselves in the simulated historical situation. Seventeen participants engaged in this study. The result revealed that the players had a high level of flow and moderate anxiety. About cognitive loads, a certain degree of intrinsic cognitive load was generated by the long storytelling, the low level of extraneous cognitive load and the high level of germane cognitive load reported indicated that this game can increase the player's commitment to the game and advance the player to think about the content of the game simultaneously.

# 15:50-16:50 | Orion Hall (5F)

## Monday Poster Session

84121 | *A Generative AI Puzzle Educational Game for Decision Making Skill Training with a Clue Exploration Mechanism*

Hung-Yu Chan, National Taiwan University of Science and Technology, Taiwan  
Yu-Chi Chen, National Taiwan University of Science and Technology, Taiwan  
Chih-Chung Chien, National Taiwan University of Science and Technology, Taiwan  
Huei-Tse Hou, National Taiwan University of Science and Technology, Taiwan

Decision making is an increasingly valued skill in both schools and workplace. Lectures and case analysis remain limited in fostering decision-making skills due to a lack of contextual simulation, insufficient interactivity, and low learning motivation. Utilizing game-based learning to develop decision-making skills may help overcome these limitations. Therefore, in this study, we designed a decision-making game with a story plot, generative AI(GAI) simulation character interaction, and a clue inference mechanism to solve the limitations. This study designed a Non-Player Character (NPC) in a simulated dialog style through GAI. Learners played the role of a police detective in the game and they could talk to the victim which played by a GAI NPC, which was scripted by our research team. They have to explore, collect, and analyze clues, and make decisions about the location of the robbers' hideout within a limited period of time. A total of 15 participants engaged in the empirical evaluation of this study. It was found that the learners had a high level of flow, and moderate anxiety, and a high level of acceptance of the game, and that they believed that the game could help them to develop their ability. In addition, 80% of these learners felt that the game experience was more anthropomorphic than common GPTs, and the dialogues were more like real-life interactions. Learners also mentioned that the clues provided by the NPC were helpful, including location characteristics, and experiences of the incident, which could help them reason during decision-making.

85517 | *Learning Bytes: Unleashing the Power of Micro-Content (Short-Form Videos) in Postgraduate Marketing Education*  
Terrence Chong, University of New South Wales, Australia

In the context of postgraduate marketing education in Australia and New Zealand, instructional methods significantly impact student engagement and learning outcomes. Traditional long-form lectures, whether delivered online or through recorded videos, face multifaceted challenges (Harrigan et al., 2022). These challenges include maintaining sustained student attention, managing lengthy loading times, and navigating information retrieval intricacies (Hsin & Cigas, 2013). Conversely, short-form videos—characterized by brevity, humor, or stylized content—offer an alternative pedagogical approach (Shi, 2024). While short-form videos effectively inform learners, enhance educational experiences, and foster engagement (Carpenter et al., 2024), the oversimplification inherent in short videos may sacrifice depth, nuance, and critical analysis. Balancing these contrasting approaches becomes pivotal for effective postgraduate marketing pedagogy. This work shares early lessons learned from integrating short-form videos into teaching, allowing educators to optimize student learning experiences.

88642 | *Developing an Augmented Reality Tool for Teaching Parkinson's Disease: A Step-by-Step Approach*

Lujain Aloum, Khalifa University of Science and Technology, United Arab Emirates  
Okobi Ekpo, Khalifa University of Science and Technology, United Arab Emirates  
Fayaz Haneefa, Khalifa University of Science and Technology, United Arab Emirates  
Abdulhadi Shoufan, Khalifa University of Science and Technology, United Arab Emirates  
Eman Alefishat, Khalifa University of Science and Technology, United Arab Emirates  
Ernesto Damiani, Khalifa University of Science and Technology, United Arab Emirates

Augmented Reality (AR) offers a transformative approach to education by merging virtual interfaces with real-world environments, potentially revolutionizing the teaching of complex medical concepts. This study explores the development of an AR tool using HoloLens 2 designed to teach the anatomy, physiology, and pharmacology of Parkinson's disease. Despite AR's promising applications, empirical validation is crucial to establishing its feasibility and efficiency in educational settings. Our development process involved several stages: mapping out the user journey, conducting physical prototype testing, acquiring 3D assets, and integrating voice commands. We started with a detailed, step-by-step user journey map to guide information flow and interactions with the AR tool. Physical prototype sessions were conducted, where end user evaluators tested interactions using 3D models while an engineer evaluated their feasibility. This iterative testing refined the tool's design for better usability and optimization of number of interactions. We then developed or sourced 3D assets and used artificial intelligence to generate voice commands. Finally, the AR tool was developed using Unity software. The impact on students' knowledge retention and overall learning experience will be evaluated against traditional teaching methods in the near future. This project was funded by the Center for Teaching and Learning and was conducted in collaboration with the Center for Cyber-Physical Systems (C2PS) at Khalifa University.

88450 | *Developing a Low-Tech Learning Boxset for English in Resource-Limited Rural Areas Based on Situated Learning Theory*

Sirada Kaeoparakam, Khon Kaen University, Thailand  
Wanwisa Wannapipat, Khon Kaen University, Thailand  
Parama Kwangmuang, Khon Kaen University, Thailand

English language acquisition in rural, resource-limited settings faces significant challenges due to a lack of access to modern educational technologies. This study explores the potential of low-tech tools and methods in developing a Learning Boxset model based on Situated Learning Theory for English language learning in these contexts. The research objectives were to identify effective low-tech tools, develop a conceptual framework, and evaluate implementation strategies for the Learning Boxset model. A theoretical approach was employed, including a systematic literature review of peer-reviewed articles published between 2015 and 2024, analysis of Situated Learning Theory, and evaluation of low-tech strategies. The study focused on applications for primary and secondary education in rural, resource-limited settings, without direct data collection from students. Key findings include the identification of highly adaptable low-tech tools such as storytelling with local context and physical object labels. The study developed a conceptual framework comprising core components, guiding principles, and implementation strategies aligned with Situated Learning Theory. Five low-tech strategies were proposed and evaluated theoretically, with Local Language Integration (LLI) and Peer-to-Peer Learning Networks (PLN) emerging as the most promising for enhancing vocabulary retention and student engagement. This research contributes to the field by providing a comprehensive, theoretically-grounded model for English language acquisition in resource-limited settings. The Learning Boxset model offers a novel approach that integrates cultural sensitivity, community involvement, and adaptable low-tech tools, addressing a critical gap in current educational practices for rural areas.



# 15:50-16:50 | Orion Hall (5F)

## Monday Poster Session

88466 | *A Comparative Study on Enhancing the Accuracy of Chinese Speech-to-Text in Instructional Videos Using Large Language Models*

Chih Chang Yang, National Taiwan Normal University, Taiwan

Tzren-Ru Chou, National Taiwan Normal University, Taiwan

Shu Wei Liu, National Taiwan University of Science and Technology, Taiwan

With the rapid development of speech recognition technology, Chinese speech-to-text (STT) systems play an important role in the production of subtitles and are often used in instructional videos. However, due to the complexity of the Chinese language and the large number of homophones, there is still significant room for improvement in the accuracy of existing STT systems. In this study, we proposed two optimization methods based on large language models (LLM), including language model-assisted editing and fine-tuned language model-assisted text editing, to improve the accuracy of Chinese STT, and verified them by producing subtitles for instructional videos in various domains and calculating the Levenshtein distance between two strings with dynamic programming. The results indicated that the fine-tuned language model-assisted text editing approach is significantly better than the language model-assisted editing approach in terms of text accuracy, and it can generate fine-tuning strategies for specific language characteristics to recognize language nuances more efficiently, thus significantly improving the accuracy of Chinese speech-to-text systems.

88447 | *A Theoretical Model for Adaptive Learning Systems in Large Classrooms: Combining Real-Time Emotion Detection and Engagement Analysis*

Apirat Siritaratiwat, Khon Kaen University, Thailand

Parama Kwangmuang, Khon Kaen University, Thailand

Anucha Somabut, Khon Kaen University, Thailand

Engaging students in large higher education classrooms presents significant challenges due to diverse learner needs and the scale of instruction. This study introduces the "Adaptive Emotion-Engagement Learning System" (AEELS), a theoretical model designed to enhance student engagement and learning outcomes by integrating real-time emotion detection and engagement analysis. The research aims to develop and validate the AEELS model, focusing on its key components and their interactions within medium to large classroom settings. The study employs a theoretical research design, divided into two phases: theoretical model development and simulation-based validation. The AEELS model, grounded in six key theoretical frameworks, includes five interconnected components: Multimodal Emotion Detection Module (MEDM), Engagement Analysis Module (EAM), Adaptive Content Delivery System (ACDS), Instructor Dashboard (ID), and Feedback and Optimization Loop (FOL). These components work together to adapt instructional content and strategies based on real-time data collected from simulated classroom environments. Results showed that the AEELS model enhances classroom responsiveness by accurately detecting and analyzing students' emotional and engagement states. The model's adaptive mechanisms enable real-time adjustments in content delivery, contributing to a more personalized and effective learning experience. These findings provide new insights into applying adaptive learning systems in large classrooms, demonstrating the potential to significantly improve student engagement and learning outcomes. This research advances the field by offering a new approach to managing large classroom environments, and enhancing both theoretical understanding and practical application of adaptive learning technologies.

## Education & Difference: Gifted Education, Special Education, Learning Difficulties & Disability

85253 | *Revisiting Inclusive Education Practices in Indonesia: Is the System and Support Ready?*

Anisa Nurfaidah, Monash University, Australia

This comprehensive review seeks to guide Indonesian stakeholders in effectively managing and fulfilling their responsibilities to provide holistic educational practices for students with special educational needs and disabilities (SEND). It offers a critical examination of the evolving research on the implementation of inclusive education in Indonesian public elementary schools and explores debates on its effectiveness in providing essential resources for the comprehensive development of students with SEND. Through an in-depth analysis of 22 scholarly articles, the review identifies key institutional challenges, including curriculum adaptation, learning support, teacher competencies, accessibility, facilities, and societal attitudes. It reveals that school-level implementation is hindered by unpreparedness in infrastructure and educator competencies, while managerial levels encountering issues in defining responsibilities and ensuring effective coordination. To address these challenges, the review introduces the 3C Inclusion Managerial Framework, a future-oriented model derived from 48 research articles, book chapters, and institutional reports. This framework focuses on collaboration, cooperation, and coordination to enhance inclusive education practices across managerial levels. By integrating current knowledge and proposing strategies in pedagogy, technology, and administration, the review offers practical mechanisms for institutional management and clarifies the impact of policy and practice on the well-being and success of students with SEND in Indonesia.

# 15:50-16:50 | Orion Hall (5F)

## Monday Poster Session

85366 | *School-Based and Nonschool-Based Socio-Emotional Learning Interventions for Children with Autism Spectrum Disorder*  
Elya Marfu'atun, Universitas Negeri Yogyakarta, Indonesia  
Sukinah Sukinah, Universitas Negeri Yogyakarta, Indonesia  
Woro Sri Hastuti, Universitas Negeri Yogyakarta, Indonesia

Socio-emotional learning (SEL) is essential for developing interpersonal and intrapersonal skills, but children with Autism Spectrum Disorder (ASD) often face challenges in these areas. Numerous SEL programs and interventions exist to support these individuals, yet a comprehensive understanding of their effectiveness is limited. This research aims to map the landscape of SEL interventions for individuals with ASD, identifying available interventions, their key components, and outcomes. It also highlights gaps in current literature and suggests areas for future research. A scoping review was used in this study. Literature searches were conducted on search engines such as PubMed, Google Scholar, and Science Direct using keywords related to "autism", "socio-emotional learning", and "interventions". Inclusion criteria were peer-reviewed articles published in English between 2009-2024, focusing on SEL interventions for individuals with ASD. The initial search yielded 3,548 articles, of which 30 met the inclusion criteria. The interventions varied widely, including school-based programs and therapeutic settings, with technology and in-person training being prominent. Successful interventions featured structured activities, explicit teaching of emotional recognition and regulation, and social interaction opportunities. Reported outcomes included improvements in emotional recognition, social skills, and reduced anxiety. This research underscores the diversity of SEL interventions for children with ASD and the need for more rigorous, longitudinal studies to determine their long-term efficacy. Future research should also examine the role of family and community in supporting SEL for individuals with ASD.

88545 | *Elementary School Students' Perceptions of and Solutions to Deviant Behavior: Focusing on the Influence of Deviant Behavior on Their Surroundings*  
Maho Komura, Gifu University, Japan

This study aimed to clarify how elementary school students feel and what kind of solutions they devise when their classmates deviate from the class rules, by focusing on the different effects of deviant behavior on their surroundings. A total of 214 third- and fourth-grade students and 170 fifth- and sixth-grade students from the Kinki region of Japan participated in the survey. The main survey items pertained to fictitious children who were drawing or talking privately during class. The participants were divided into rule-explicit (Note that there is a rule in the class that you should not do anything unrelated during class) and non-explicit conditions. The main result was that the reaction of children to drawing in class, which had little effect on simultaneous instruction, differed depending on the grade level and the presence or absence of explicit conditions of the rules. Specifically, more children found third- and fourth-grade more annoying than fifth- and sixth-graders. Also, many students in fifth- and sixth-grade affirmed deviant behavior under the conditions in which the rules of the lesson were expressed. Children are able to form new values with their own ideas as they move up in grades. Therefore, it can be assumed that the students consciously and voluntarily thought about the relationship between the rules of the lesson and drawing behavior. As a result, in this study, it is considered that it is "good" to draw pictures that have less impact on the surroundings in the upper grades.

87322 | *Gamification in Education for Students with Dyslexia: A Systematic Literature Review*  
Jiawei Wang, Universiti Sains Malaysia, Malaysia  
Shaorong Ji, Universiti Sains Malaysia, Malaysia

The concept of gamification-based learning has attracted much attention in the field of education over the past few years because it has the potential to revolutionize the traditional educational experience of learners by making it more engaging. Gamification has been widely tested and developed in STEM education and other disciplines with promising results. It is worth noting that students with dyslexia often have difficulty recognizing words accurately or fluently and have poor spelling skills. This means that their needs in the learning process cannot be met by conventional learning materials. Therefore, this study explored the current status of gamification in education with students with dyslexia as the subjects. Through a systematic review of articles published between 2018 and 2023, this study examined the development of the field over the past five years, the gamification elements involved, and the impact on students with dyslexia at different educational stages. The results show that there is relatively limited research on gamification-based assistance for students with dyslexia. This finding may guide teachers and curriculum designers to try to develop more gamification-based learning models in the future to better meet the needs of students with dyslexia in the learning process.

## Education, Sustainability & Society: Social Justice, Development & Political Movements

86993 | *The Fundamental Logic and Potential Value of Applying Restorative Justice to the Prevention of School Bullying in China*  
Xuanyu Chen, Beijing Normal University, China

With the frequent exposure of school bullying cases, the Chinese government has been working to address the prevention and treatment of school bullying in recent years. School bullying infringes on individuals and disrupts peer relationships, which matches restorative justice's focus on the harm to interpersonal relationships and the process of addressing it. This paper aims to explore the advantages and outlooks of restorative justice in preventing and addressing school bullying, starting from the theory of restorative justice and integrating with China's campus environment and judicial practices. In theory, restorative justice encourages the restoration of interpersonal relationships, meeting the very needs of reconstructing peer relationships in school bullying; It emphasizes a victim-centered balance of justice, providing the mental comfort that the victims urgently need. Meanwhile, restorative justice encourages reconciliation and negotiation, aligns with China's traditional legal culture of "no litigation" and the pursuit of values of "harmony is precious"; It emphasizes on educate, guide, and treat individuals equally, which is in line with the original intention of school education. In practice, traditional restorative mediation model or meeting model can theoretically be used for different bullying cases, focusing on "truth-telling," "empowerment," and "apology and compensation." In the future, based on traditional Chinese campus culture and the authority of class teachers, a natural environment and appropriate mediators are provided for restorative justice, we can extend the bully prevention further by reinforcing proactive practices of educational learning and reactive practices of responding to harm and wrongdoing.

# 15:50-16:50 | Orion Hall (5F)

## Monday Poster Session

84491 | *Globalization, Education Equity, and Quality in Africa: A Comparative Study*  
Sunday Onyi, University of Lagos, Nigeria

This study examines the relationship between globalization, education equity, and quality in Africa, with a focus on South Africa, Nigeria, Ghana, and Kenya. The research analyzed educational policies and practices, the study highlights both the benefits and challenges faced by these nations in achieving equitable and high-quality education systems. Among the several challenges includes; poor educational budget, poor curriculum implementation, inadequate political will to transform the face of education in Africa, etc. Using case study research method, the research collected data from international organizations, national reports, and academic studies, the paper investigates disparities and progress in educational access and outcomes. The findings provide a nuanced understanding of the current educational landscape in Africa and recommends that education should be at the peak of national budget and finance, reforms in curriculum delivery for improved education quality.

## Educational Policy, Leadership, Management & Administration

88579 | *Exploring Teachers' Perceptions and Performance of Teacher Leadership Behavior: An Importance-Performance Analysis*  
Wen-Yan Chen, National Chi Nan University, Taiwan  
Po-Hsiung Hung, Education Bureau of Kaohsiung City Government, Taiwan

This study aims to explore teachers' perceptions of teacher leadership behavior in junior high schools in Taiwan. It begins with an analysis of the current state of teacher leadership behavior and examines differences among teachers with various backgrounds. An Importance-Performance Analysis (IPA) method is then used to evaluate the distribution of teacher leadership behavior. A questionnaire survey was employed as the research method, targeting public junior high school teachers in middle Taiwan and 514 valid samples were collected. The collected data were analyzed using descriptive statistics, t-tests, one-way ANOVA, and IPA. The main findings are as follows:

1. Teachers perceive the importance of teacher leadership behavior as above average, with the highest scores in the "professional orientation, peer level" category.
2. Teachers' performance in teacher leadership behavior is below average, with the highest scores also in the "professional orientation, peer level" category.
3. Significant differences in the perceived importance of teacher leadership behavior were found among teachers based on school size and participation in teacher organizations.
4. Performance of teacher leadership behavior varies significantly by gender, current position, school size, and participation in teacher organizations.
5. IPA results indicate that most teacher leadership behaviors are positioned in the first (continue to maintain) and third (secondary improvement) quadrants.

88431 | *A Comprehensive Synthesis and Administrative Implementation Framework for Universal Design for Learning*  
Saowanee Sirisooksilp, Khon Kaen University, Thailand  
Atcharawadee Kerdsritong, Khon Kaen University, Thailand  
Rapeephan Phaengsopha, Khon Kaen University, Thailand

Implementing UDL in educational institutions is a powerful approach to creating inclusive educational environments that cater to the diverse needs of all learners. However, its implementation in Thailand remains limited due to varying contextual challenges. This study aims to synthesize and validate UDL components specifically tailored to the Thai educational context. A mixed-methods approach was employed, consisting of an extensive document analysis, expert focus group discussions with nine educational experts, and a subsequent validation phase through a survey of 50 educational stakeholders. The synthesis phase identified six critical administrative UDL components, including establishing a universal learning vision, stakeholder engagement, professional development, flexible curriculum design, an accessible learning environment, and assessment design. The validation results indicated a high level of appropriateness for these components, with overall mean scores above 4.7 out of 5. Additionally, comparative analysis with international UDL implementations, fundings, and technology integration was conducted to further contextualize the findings. The study concludes that while the UDL framework is highly relevant for Thailand, its successful implementation requires strategic planning, particularly in technology integration and professional development. This research offers new insights by adapting global best practices in UDL to the specific needs of Thai education, contributing to the ongoing discourse on inclusive education in Southeast Asia.

87784 | *The Dialectical Generation of "Structure-Agency" in Collaborative Governance: A Case Study of Cross-System Collaboration in Taiwan MOE*  
Jui-Hsuan Hung, National Tsing Hua University, Taiwan

Over the past decade, collaborative governance, a standard policy decision-making mechanism in public administration, has become a crucial planning tool for policy decisions within Taiwan's Ministry of Education. Since establishing the Collaborative Center in Taiwan in 2013 and its subsequent reformation into a new model of cross-system collaboration in 2019, this mechanism has been operational for over ten years, providing significant policy planning and recommendations for Taiwan's educational policies. This study examines cross-system collaboration within Taiwan's Ministry of Education, focusing on organizational structure changes, actors' exercise of agency, and the interwoven relationship between structure and agency throughout its operation. The study employs semi-structured interviews and document analysis as data collection methods to conduct a qualitative research analysis of this process. The research findings indicate, first, that the "structure-agency" relationship within the cross-system collaboration of Taiwan's Ministry of Education is influenced by the socio-cultural context of educational policies, with varying mission objectives and rates of change over the past decade. Second, this cross-system collaboration functions as an ever-evolving structure, where the agency of its members is also empowered, and the relationship between structure and agency is mutually reinforcing. Finally, the understanding of the "structure-agency" relationship differs among various stakeholders, with scholars and experts being the most active participants. The study concludes with recommendations for both academic research and practical application.



# 15:50-16:50 | Orion Hall (5F)

## Monday Poster Session

### Educational Research, Development & Publishing

86710 | *Preliminary Integration of Group Counseling in Taiwan's Learning Assistance Program: An Action Research Approach*  
Chi Wei Jen, National Tsing Hua University, Taiwan

The global shortfall in rural educational resources has prompted numerous reforms and support initiatives. This study evaluates Taiwan's Learning Assistance Program (LAP), which integrates group counseling into the educational process, targeting the specific needs of rural students to assess its broader impacts. Launched in March 2024, the LAP involved ten weekly sessions for four eighth-grade boys, with five sessions dedicated specifically to group counseling conducted by teachers who are also intern counselors. Activities included setting class norms, stating mutual expectations, and sharing themselves with others. One student left the program to pursue a music initiative, while the others completed it successfully. The program applied action research to continuously adjust interventions based on the students' changes, states, and the leaders' reflections. Most students hailed from high-risk family environments characterized by low socioeconomic status and insufficient parental attention, with little understanding of their children's inner feelings. These conditions initially fueled power struggles and resistance to authority. An empathetic, respectful, and understanding approach by the facilitators gradually fostered more constructive interactions, enhancing students' openness about personal vulnerabilities and improving their engagement in both educational and relational contexts, alongside notable increases in altruism and ethical behavior. Traditional learning assistance programs narrowly focus on grades and tests. This study emphasizes addressing the holistic developmental needs of students. Reflecting on the administrative burdens and the cultural dissonance between indigenous rural students and mainstream Han culture highlights a vital area for future research and program design, underscoring the necessity for culturally sensitive educational practices.

85569 | *Development of Science Instructional Kits to Improve Teachers' Students Memory and Understanding in Biology Courses*  
Phatcharida Inthama, Srinakharinwirot University, Thailand  
Suwicha Wansudon, Srinakharinwirot University, Thailand  
Trai Unyapoti, Srinakharinwirot University, Thailand  
Sompong Jaideechoey, Srinakharinwirot University, Thailand

Biology encompasses numerous components and extensive knowledge that require diverse learning modalities. Teaching methods and techniques are crucial factors affecting students' learning in biology. To enhance students' understanding of biology, particularly in the fundamental topic of cell structure, this study employs a scientific learning kit designed for first year university teachers' students, science majors. This kit utilizes diagrams, models, and animations to visualize cell structures and their functions, along with microscopy for direct cell observation. The study's findings demonstrate the effectiveness of these Science Instructional Kits in improving educational outcomes. Students exhibited enhanced ability to retain knowledge and expressed satisfaction in learning through these kits. Additionally, students' understanding of cell biology showed significant improvement compared to their knowledge prior to using the scientific learning kit. By using these resources, students can develop a comprehensive understanding of cell structure, from its molecular foundations to its role in sustaining life processes across diverse organisms. This foundational knowledge is essential for exploring more complex biological phenomena.

88096 | *Development of a Recognizing Digital Skills Model to Promote Community Business Learning and Creative Tourism in the Mekong Riverside Area*  
Suwisa Jarutkamolpong, Nakhon Phanom University, Thailand  
Kantapop Buathong, Nakhon Phanom University, Thailand  
Parama Khangmuang, Khon Kaen University, Thailand  
Athirhat NunKuntee, Nakhon Phanom University, Thailand  
Kanlaya Mikhama, Nakhon Phanom University, Thailand

Digital literacy and skills development have become essential for life and work in the 21st century. UNESCO's Learning City concept emphasizes creating environments conducive to lifelong learning for all in a community. This study recognizes the importance of digital skills development as a key future skill that needs to be promoted immediately and continuously to enhance the competitiveness and sustainable development of communities in the digital age. The objectives are as follows: 1) Development of a recognizing digital skills Model, 2) evaluate the appropriateness of the developed model, and 3) Investigate the outcomes of recognizing digital skills Model for community business entrepreneurs and creative tourism in the Muang Nakhon Phanom area along the Mekong River. The research methodology consisted of 3 phases: 1) model synthesis through document analysis, 2) model appropriateness assessment by 9 experts, and 3) model application to develop digital skills. The target group consisted of 258 small entrepreneurs from 8 communities in the Mekong River Area, Nakhon Phanom Municipality, selected by purposive sampling. The research instruments were a document synthesis form, a model appropriateness form, and a digital skills assessment form. Data were analyzed using mean and standard deviation. The results found that the digital skills perception model consisted of 4 components: 1) environmental stimuli, 2) sensory perception, 3) interpretation using specialized experiential knowledge, and 4) sensory stimuli interpretation. Experts assessed the developed model as highly appropriate, and the post-learning digital skills assessment found that 80.58% of the participants scored from basic to advanced levels.

# 15:50-16:50 | Orion Hall (5F)

## Monday Poster Session

### Foreign Languages Education & Applied Linguistics (including ESL/TESL/TEFL)

85027 | *Enhancing Primary School Vocabulary Acquisition with AI-Generated Music: A Novel Approach*

Lingling Liu, ProoProo Co.,Ltd., Japan

Yuanyuan Zhang, Binghui Primary School, China

The potential of music to activate the brain and enhance learning has been widely recognized (Mogi, 2008), yet its application in English education remains underexplored. Grammatical errors in popular songs can mislead students, and the need for specialized knowledge to create educational songs poses a challenge for teachers (Liu, 2023). AI music generation technology offers a convenient solution by creating songs suitable for educational purposes. While its benefits in adult English education have been demonstrated (Takano, 2024; Liu, 2024), its effectiveness for young students requires further research. This study conducted a two-month empirical investigation with 90 third-grade students from primary schools in Tianchang City, Anhui Province, China, divided into an experimental group and a control group, each with 45 students. The experimental group was taught using AI-generated English songs, while the control group continued with traditional methods. Results indicated significant improvements in vocabulary retention and comprehension in the experimental group, with more stable and lasting learning outcomes (correlation coefficient: experimental group 0.48, control group 0.34). The study confirms the substantial potential of AI-generated songs to enhance primary school English learning and significantly increases student interest and engagement in the classroom. We recommend broader adoption of AI-generated music in education to explore more effective teaching models and foster innovation in educational technology.

87767 | *Effects of a Triggering Instruction on English Utterances by Japanese University Students in a Virtual-Realistic Setting*

Noriko Aotani, Tokai Gakuen University, Japan

Shin'ya Takahashi, Tokai Gakuen University, Japan

Our previous study clarified that a simple triggering instruction for switching L2 learner's viewpoint from objective to subjective could work as a kind of cognitive communication strategy to improve their English utterances. In the experiment, participants looked at pictures and were instructed to utter anything that came to their mind in English. When they were instructed to begin the task by saying likes and dislikes of the picture, their utterances changed qualitatively; subjective expression increased and objective description decreased. The present study investigated the similar effects of a triggering instruction on participants' English utterances in more realistic experimental setting. Ten Japanese university students viewed videos of street-walking in New York or Tokyo, and were instructed to utter anything they watched or felt in English as much as they could. Videos were projected on a hemisphere screen with 130cm in diameter so that participants got a virtual-realistic experience. In the second half of the experiment, participants were additionally instructed to perform the task as if they introduced the street to the viewers of the video. Participants' utterances were segmented into meaning units, the minimum unit of words that makes sense, each of which was classified as either an objective description of what is shown in the video or a subjective expression of what participants felt and thought. The results reinforced our previous findings; the subjective expression increased from the first to the second half, while the objective description did not change.

88684 | *Sound and Non-Musical Meaning: Linguistic Typology, Phonosyntax and Expressive Possibilities of Spoken Text*

Andrea Kóňová, University Constantine the Philosopher in Nitra, Slovakia

Martin Štúr, Constantine the Philosopher University in Nitra, Slovakia

The aim is to identify the current possibilities and challenges of researching the relationship between sound language form and how it can be a stimulus for the generation of meaning in non-musical linguistic communication practice in four typologically different languages: English, Spanish, Japanese and Slovak. A sound, syntactic and meaning unit, sirreme, was identified for the Spanish language, which turns out to be fundamental for proper communication. We are looking for this unit and other phenomena connecting these levels and criteria in named languages. When clarifying the conceptual and theoretical apparatus and the state of understanding of the topic, we use the literary-historical method and the conceptual analysis of the basic linguistic, semiotic, and philosophical models of these levels of the communicative process. We focus on units common to language and speech. Using a comparative sound and syntactic analysis, we identify the units common to these two levels on the example of the audiovisual work *Harry Potter and the Philosopher's Stone* and its translations. Sirreme and other phonosyntactic units and phenomena present in such typologically and historically different languages show a level of importance for the communication of fundamental properties, which until now has been practically mainly addressed by professionals engaged in spoken language production. However, their rules can be precisely described, scientifically exactly researched, and applied not only in science but also in foreign language teaching, improving the quality of speech even among ordinary users of the language.

# 15:50-16:50 | Orion Hall (5F)

## Monday Poster Session

### Higher Education

85910 | *The Juggling Life: Investigating Work-School Conflict Among Thai Graduate Students*

Siripreeya Chaiboonma, Chulalongkorn University, Thailand

Kanit Sriklau, Chulalongkorn University, Thailand

Siwachoat Srisuttiyakorn, Chulalongkorn University, Thailand

Working students often face challenges in balancing their responsibilities between workplace and school. When demands become unbalanced, work-school conflict (WSC) arises. This study aims to develop a WSC instrument for graduate students and analyze it using qualitative and quantitative data. A two-phase exploratory sequential mixed methods design was employed. In the qualitative phase, semi-structured interview was implemented online with 19 working students selected through purposive sampling, and results were analyzed using conventional content analysis. The findings informed the development of a 13-item questionnaire addressing three key components: time-based conflict, strain-based conflict, and behavior-based conflict. Content validity was assessed using the content validity index (CVI) from five experts. In the quantitative phase, the questionnaire was refined based on experts' feedback and tested for reliability with 32 working students. Data were collected from 160 working students for construct validity testing. Results showed that the I-CVI for individuals ranged from .60-1.00, the S-CVI/UA was .62, and S-CVI/AVE was .86, and all indicated acceptable validity. Cronbach's alpha values for internal consistency were .89 for time-based conflict, .89 for strain-based conflict, and .86 for behavior-based conflict, respectively. The measurement model presented acceptable construct validity: Chi-square (1, N = 160) = 1.83,  $p = .17$ , RMSEA = .07, SRMR = .02, CFI = .99, TLI = .98. Most participants were master's students (69.38%). Overall, students reported a medium WSC level ( $M = 2.68$ ,  $SD = 2.61$ ), with remarkable aspects in strain-based conflict. Therefore, enhancing self-regulation skills and providing faculty support systems could help mitigate WSC for working students.

83689 | *What Factors Influence the Satisfaction of Graduate Student-Supervisor Relationship: Using the fsQCA Approach*

Xiaoyan Luo, Beihang University, China

Building a harmonious guidance relationship is a key element for improving the quality of graduate training. This study focuses on exploring the factors influencing the students' satisfaction of supervisor-graduate student relationship, using the fuzzy setting comparative analysis method (fsQCA). A survey was conducted among 168 graduate students who were studying at universities in China. We included satisfaction of relationship as an outcome variable. The conditional variables include graduate students' professional interest, willingness to communicate with supervisors, supervisor characteristics, supervisor's scientific research support, supervisor's emotional support, and supervisor's employment support. Findings revealed a single factor is not necessary to influence satisfaction with the supervisor-student relationship. High satisfaction with the mentor-student relationship is the result of a combination of six elements. There are 8 paths to realization. Generally, it can be summarized into 4 types of models including strong professional interest and mentor traits externally and internally driven, strong mentor traits and emotional support externally driven, strong student willingness to communicate internally driven, high mentor support and strong willingness to communicate externally and internally motivated. The communication intention of the graduate students, the characteristics of the supervisor and the emotional support of the supervisor to the graduate students are the dominant conditional variables of the mentee relationship satisfaction. Professional interest of graduate students, scientific research support of tutors and employment support of tutors are auxiliary conditional variables that affect the satisfaction of mentee relationship. Based on this, the study puts forward specific suggestions from the individual factors of students and tutors.

86597 | *Effects of Perceived Teachers' Autonomy Support on Motivation of Japanese Undergraduate with Mild Difficulties in Learning*

Ryo Okada, Kagawa University, Japan

Research has suggested that students' motivation plays a critical role in achieving educational success. However, some students struggle with maintaining their motivation for a variety of reasons. Motivational research has revealed the effect of teachers' autonomy support on students' learning. The purpose of this study was to examine the effect of perceived teachers' autonomy support on academic motivation of university students with and without mild difficulties in learning. Participants were 201 Japanese undergraduates, all of whom were freshmen. The hypothetical model posited that perceived teachers' autonomy support would be related to students' intrinsic motivation and metacognition, which, in turn, would be related to self-evaluated achievement. Based on self-rated scores of difficulties in academic learning, two groups were created: students with and without mild difficulties. A multigroup structural equation modeling analysis revealed that perceived teachers' autonomy support had a larger effect on intrinsic motivation in students with mild difficulties. The effect of autonomy support on metacognition did not differ between the two groups. Intrinsic motivation was related to self-evaluated achievement in students without difficulties, whereas metacognition was related to self-evaluated achievement in students with mild difficulties. The present findings documented the role of teachers in supporting struggling learners in higher education. Teachers' autonomy support can promote intrinsic motivation and metacognition in students with mild difficulties in learning.

85084 | *Effects of Differential Ordering of Reading Strategy Instruction on Korean EFL Learners' Reading Comprehension Performance*

Soo-Yoon Kim, Yonsei University, South Korea

This study aims to examine (a) how the difference in the order of instruction (GA: providing global item type first before analytic item type and AG: providing analytic item type first before global item type) on English reading item types can affect the overall reading performance in Korean EFL learners, and (b) how they are influenced by their English proficiency levels (low, intermediate, and high). 180 Korean university EFL learners participated in this study, and they were divided into two groups according to the reading item types. Three reading performance tests (pre-, mid-, final-tests), a questionnaire, and an interview were administered to both groups in order to evaluate the learners' reading performance and responses to the order of reading strategy instructions. Results showed that AG order was helpful in improving the overall reading performance in Korean university EFL learners. Interestingly, when comparing the results according to English proficiency groups, AG instruction enhanced the overall English reading performance in all of the three English proficiency groups, but each group obtained the results differently. Surprisingly, the questionnaire results and interview also showed that AG order positively influenced the learners' overall thoughts on English reading. This study suggested that (a) providing AG instruction is an effective English learning facilitation for Korean EFL learners, and (b) AG instruction should be introduced within the scope of the individual learner's self-regulated learning capacity for successful reading performance. More detailed results, discussions, and pedagogical implications of the findings are given for English teachers and potential research.



# 15:50-16:50 | Orion Hall (5F)

## Monday Poster Session

86750 | *The Impact of AI Writing Tools on Academic Writing: The Perspective of Higher Education Students in Indonesia*

Noviyanti Noviyanti, Universitas Negeri Yogyakarta, Indonesia

Dwiyani Pratiwi, Universitas Negeri Yogyakarta, Indonesia

Suci Apriani, Universitas Negeri Yogyakarta, Indonesia

The advancement of artificial intelligence (AI) can raise the quality of students' writing and increase the demand for educators to understand how to use AI approaches in the classroom to achieve educational success. In this study, researchers identified digital tools usage to organize the writing of higher education students. The goal of this study is to investigate the types of AI writing tools and their impacts on academic writing for higher education students in Indonesia. This research was conducted through a qualitative method using a case study design regarding students' perspectives on AI writing tools to assist their academic writing. The data were analyzed through thematic analysis and interpretation of the interview transcripts. The participants were six Indonesian students with different educational backgrounds. The findings showed that the students had pros and cons to AI writing tools. They argued that digital tools had positive views as helpful tools for checking spelling and grammar, paraphrasing and summarizing, translating, proofreading, citing, and managing references. Despite these beneficial advantages, there were students' concerns regarding whether ideas are submitted into the AI database and possibly shared with other users due to copyright and plagiarism issues. This question became a concern when students wanted to convey their ideas to AI. The researchers concluded that the role of AI tools in improving their academic writing significantly impacted generating ideas and revising students' writing. This research will be valuable and useful for future investigations in exploring the utilization of AI tools in generating writing assignments.

81450 | *Exploring Financial Literacy and Financial Management Skills Among Undergraduate Students*

Mercedes Valadez, California State University, Sacramento, United States

US college students have limited financial responsibility awareness (Wood, 2022). This limitation creates conditions of heightened financial risk-taking (Molina-Garcia, Cisneros-Ruz, Lopez-Subires, & Dieguez-Soto, 2023; Xiao, Ahn, Serido & Shim, 2014). For example, students with minimal financial literacy skills are more likely to make poor financial decisions and become the victims of financial scams (Williams & Rote, 2019). Evidence suggests that campus-based programs and course-based projects focused on building financial knowledge among college students can play a pivotal role in helping them acquire life-long financial literacy skills (Goetz, 2011; Looney, 2011). Poor financial management skills can have an impact on financial behaviors, mental health, degree completion, and career options (Mandell & Schmid Klein, 2009). This study uses anonymous Qualtrics survey responses from 200 undergraduate college students to investigate their overall financial wellness and financial management practices. Additionally, it explores student's financial preparedness and addresses the factors that play a role in mitigating or increasing their financial risks. Lastly, this study addresses how using course-based projects focused on providing effective financial education can impact students' financial knowledge and skills. Findings reveal that most respondents have limited formal financial management training, rely on parents for financial wellness knowledge, and are experiencing high levels of financial strain. However, respondents also note that financial course-based projects enhance their financial literacy and competency skills and provide them with a better sense of how to protect themselves from financial scams. This presentation will address practical implications drawn from the findings from this study.

88139 | *Evaluating Clinical Learning Outcomes in Undergraduate Physical Therapy Education*

Hui-Yi Wang, Kaohsiung Medical University, Taiwan

The concept of entrustable professional activities (EPA) has gained prominence as a useful framework for the approach of competency-based education. The study aims: to establish a scoring system for EPA implemented in a clinical learning course for exploring progress in competencies within the course. Methods: This study focused on an undergraduate clinical course conducted in teaching hospitals. EPA items were defined as a series of task activities designed to tailor with the learning topic. The establishment of EPA scoring scales went through several stages, including developing learning outcome milestones for each EPA item and designing a set of questionnaire. Three clinical instructors participated and they conducted three independent assessments for each student at the beginning, mid-term and at the end of the learning period. The proficiency of students in acquiring entrustable competencies during learning was illustrated through quantitative analyses. Results: The EPA topic consisted of 13 task activities. A total of 30 students (12 males) were recruited to undergo assessments using the scoring system. The clinical learning duration was arranged for either 6 or 9 weeks for each student. Our results depicted the averages of the learning performances of the students across the 13 task activities throughout the course. Conclusion: Our findings were suggested that the established EPA task activities possess good construct validity, effectively reflecting various aspects of the learning outcomes associated with developing clinical competency. Establishing an appropriate scoring system would assist instructors in evaluating student performances and providing targeted feedback to strengthen areas which requiring further learning.

88626 | *Exploring University Students' Conceptions and Knowledge of Climate Change*

Shu-Sheng Lin, National Chiayi University, Taiwan

Given the importance of the climate change issue, understanding students' preconceptions and knowledge about climate change is crucial for effective instructional design. This study surveys university students' concepts and knowledge related to climate change. The author developed the "Climate Change Understanding Questionnaire," which encompasses five dimensions: the definition of climate change, its connection to global warming, evidence of global warming, its impacts, and strategies for responding to climate change. Each dimension includes 2 to 3 open-ended questions. The study used convenience sampling, surveying a total of 334 students. During data analysis, scoring rubrics were created for each question, and the scores of science majors (N=151) were compared with those of non-science majors (N=183). The results revealed no significant difference between science and non-science majors in their overall understanding of climate change. However, science majors scored significantly higher on the definition of climate change, the connection between climate change and global warming, and the evidence of global warming, while non-science majors proposed significantly more mitigation strategies. Both groups rarely mentioned adaptation strategies. Furthermore, some of the students had misconceptions about climate change, particularly regarding the relationship between climate change and global warming, as well as the causes of global warming. The implications for science instruction are discussed.

# 15:50-16:50 | Orion Hall (5F)

## Monday Poster Session

88474 | *The Power of Student Voice: Enhancing Teaching and Learning Through Feedback in Higher Education in Kazakhstan*  
Ainur Suranchina, University of Bristol, United Kingdom  
Aigul Sarenova, Almaty Management University, Kazakhstan

This research explores student satisfaction with teaching and learning at a technical university in Kazakhstan, aiming to provide actionable insights for the new university administration and valuable information for current middle management. Conducted between December 2023 and January 2024, the study utilized a qualitative approach, combining a comprehensive student satisfaction survey with in-depth focus group discussions. A total of 293 students participated in the survey, which included both multiple-choice and open-ended questions to gather nuanced feedback on their educational experiences. Before designing the student satisfaction survey, three focus groups with approximately 15 students in total were conducted to identify their main concerns and later design survey questions to validate the emerging themes from the data. The data collection was carried out on the voluntary basis. The analysis revealed significant insights into the students' experiences, highlighting areas such as the need for more practical applications within the curriculum, improvements in classroom infrastructure, and a preference for more engaging and interactive teaching methods. The study also identified concerns about inequity, particularly regarding the language of instruction. These findings provided a quick yet comprehensive overview for the new administration, helping to inform strategic decisions aimed at enhancing the quality of teaching and learning. For the current middle management, the research offered valuable feedback on existing practices and pointed to areas that require attention and improvement. This study underscores the importance of incorporating student voices into the decision-making process and suggests further research involving other stakeholders to create a holistic strategy for improving educational outcomes at the university.

88803 | *The Attribution of Academic Shame to Humanities and Social Science Doctors in Science and Technology Institutions*  
Yuqing Zhao, Beihang University, China

This paper focuses on the topic of academic shame and points out its importance in academic culture and its influence on doctoral candidates. Through literature review, the definition of academic shame and related theories of attribution are sorted out. Taking humanities and social science doctoral students in science and technology universities as the research object, the interview data were analyzed by using the method of grounded theory through the steps of open, axial and selective coding. It is found that the results of academic shame attribution are consistent with Weiner's attribution theory, and the influencing factors include internal-instability, internal-stability, external-instability and external-stability factors. It also constructs a model of academic shame attribution, which has been tested to have theoretical saturation. Finally, the model is explained from the aspects of research self-efficacy, personal characteristics, guiding relationships and environmental constraints.

88862 | *Psychological Peculiarities of Professional Competence of Future Education Managers*  
Olga Tapalova, Abai University, Kazakhstan  
Askat Kuatbekov, Acad. Kuantbekov University of Peoples Friendship, Kazakhstan

The article presents the results of the research into the formation of professional competence of future education managers. The relevance of the problem under study lies in the demand for educational managers for educational institutions. The study of the phenomenon 'professional competence' is considered by scientists through the study of personal and behavioural characteristics of young people. This phenomenon is a multidimensional personal education necessary for active and successful activity in the profession. Professional competence is presented as a basis for the disclosure of self-actualisation potential and acquisition of new personal qualities in professional activity. Research methods: Personal and behavioural characteristics of future managers were studied using the test-questionnaire of personality self-actualisation diagnostics. Formation of basic professional competences was determined by expert assessments of employers - school principals with many years of experience. The results of the experimental study indicate that the formation of professional competence of future education managers needs psychological and pedagogical support. Professional competence of an education manager is a complex personal education, which can be revealed only through the sum of competences and the unity of motivational, cognitive and behavioural structures of personality development. With directed pedagogical training and psychological and pedagogical support the future education manager will be able to acquire professional competence, master high motivation of achievement to success, professional efficiency and productivity and further professional mastery.

## Interdisciplinary, Multidisciplinary & Transdisciplinary Education

85367 | *Analysis of the Readability of Health Education Texts for Elderly Readers: An Eye-Tracking Experiment*  
Hui-Xin Chen, National Taiwan University of Science and Technology, Taiwan  
Hou-Chiang Tseng, National Taiwan University of Science and Technology, Taiwan  
Yao-Ting Sung, National Taiwan Normal University, Taiwan

Health literacy refers to the ability to understand, evaluate, and apply health information. Individuals with higher health literacy skills can more easily comprehend the content of health education texts. Conversely, those with lower health literacy may struggle to understand this information, leading to potential health deterioration. With the rapid growth of the global population aged 65 and older and the decline in cognitive abilities, providing more readable texts can enhance comprehension. Therefore, assessing the readability of health education texts has become a significant research topic. To improve text comprehension, various countries have proposed their own readability guidelines. For instance, the United States recommends providing texts suitable for a 5th to 6th-grade reading level, the United Kingdom suggests a difficulty level not exceeding a Flesch-Kincaid grade level of 12, equivalent to the 12th grade in the U.S., and Australia considers an 8th-grade reading level as comprehensible. However, there are no comparable text readability recommendations in Taiwan. Addressing this research gap, this study employs eye-tracking experiments from the reader's perspective, using physiological characteristics to confirm their reading process and comprehension performance. This approach aims to ensure that text content can be effectively understood and to provide appropriate readability level recommendations for future health education texts for the elderly in Taiwan.

# 15:50-16:50 | Orion Hall (5F)

## Monday Poster Session

84710 | *Effectiveness of Guidance and Counselling in Dealing with Indiscipline Among Pre-tertiary Students in Ashanti Region of Ghana*  
Kwaku Sarpongsei Boateng, Akenten Appiah-Menka University of Skills Training and Entrepreneurial Development, Ghana

Mankinde (1984) supports that school counsellors are suppose to facilitate the optimum development of the student holistically. However, indiscipline such as vandalism, examination malpractice, sexual pervasion, stealing, drug abuse and others among pre-tertiary schools in the Ashanti Region is on the ascendancy raising doubts as to whether counselling services offered in the schools are effective. The study had the objective of finding out if the counselling services being offered in these schools are effective to curb the incessant indiscipline among students at the pre-tertiary level. The researcher used the survey design method which embraces questionnaires and interviews to determine opinions, attitudes and preferences of respondents. A sample size of 512 students, 36 teachers and 18 teacher counsellors drawn from a population of 9013 students, 55 teachers and 32 teachers counsellors respectively. The sample size was used based on how older a school is, high enrollment level and the presence of adequate facilities. The significance of the study unveiled some gaps in the guidance and counselling services offered in the pre-tertiary schools and suggested ways to improving them. The data collected and analysed revealed these findings. Firstly, teacher counsellors were not specially trained experts. Secondly, the counselling services were limited in content and do not focus on indiscipline. Thirdly, the students were not interested in visiting the teacher counsellor due to insecurity and misconceptions. The researcher recommended that concepts that spark indiscipline like Albert Bandura's social learning theory should be used to train the teacher counsellors. Trained counsellors should be employed in these schools.

85565 | *Exploring the Effects of Integrating SVVR into High School History on Students' Self-efficacy, Learning Behavior, and Learning Performance*

Chia-Ling Wu, National Taiwan University of Science and Technology, Taiwan  
Hui-Xin Chen, National Taiwan University of Science and Technology, Taiwan  
Shuo-Jung Hsu, National Taiwan University of Science and Technology, Taiwan

Previous studies have shown that immersion through VR is effective in helping students become more integrated into the curriculum, enhancing students' understanding of the content, self-efficacy, learning behaviors, and learning performance. In this study, the impact of creating a VR course related to historical homes tours through Uptale is expected to enhance students' self-efficacy, learning behaviors, and learning performance. The initial test was conducted by recruiting 10 graduate students. Comparison of 2D video and SVVR to test the effectiveness of the software. The results of the History Achievement Test showed a significant increase in self-efficacy, learning behavior, and performance in the SVVR group, and descriptive statistics and t-tests showed that SVVR had a positive impact on history learning. Data support for the experiment was provided for two classes of 60 students in the first year of high school. Therefore, it can be found that the SVVR learning approach not only enhances students' understanding of the subject, but also improves students' concentration, which can be utilized in teaching other subjects or professional training courses.

88142 | *Integrating Scientific and Engineering Knowledge in Problem-Based STEM Education*

Meng-Fei Cheng, National Changhua University of Education, Taiwan  
Huang-Chi Chiu, National Changhua University of Education, Taiwan

STEM (Science, Technology, Engineering, and Mathematics) teaching now focuses on interdisciplinary integration, but how students apply this knowledge is unclear, especially with teacher scaffolding. This study explores how students apply interdisciplinary knowledge within a problem-based learning STEM curriculum focused on designing wind-driven turn signals. The research aims to understand the types of knowledge students use when solving problems and how they integrate scientific and engineering knowledge provided by instructors. The study involved 53 university physics students in Taiwan, who were tasked with designing wind turbine blades and circuits. Their work was analyzed to assess whether they applied scientific knowledge, engineering knowledge, life experience, or intuitive guesses. The findings reveal three key insights. First, students tended to use the type of knowledge (engineering or scientific) most recently introduced by the instructor but did not naturally integrate both. Second, a structured teaching approach that introduced engineering knowledge first, followed by scientific knowledge, and then emphasized their integration helped students effectively combine and apply these areas of knowledge in problem-solving. Third, some students relied on intuition over scientific reasoning when the two conflicted, indicating that instructors must continually encourage applying scientific principles to move beyond intuitive thinking. This study contributes to understanding how students think during engineering design and offers a teaching strategy that scaffolds the integration of scientific and engineering knowledge, enabling students to apply these skills appropriately in various contexts.

87243 | *The Way Socioeconomic Status and Demographics Modify Parenting Styles*

Sansanee Sutthi, Chulalongkorn University, Thailand  
Pataporn Sukontamarn, Chulalongkorn University, Thailand

Socioeconomic changes globally and in Thailand have influenced family life and parenting practices. These shifts in economic conditions, family structures, and cultural norms are crucial in children's development and behavioral outcomes. This study aimed to investigate the influence of demographic and socioeconomic factors on the adoption of parenting styles in Thailand. This quantitative study utilized secondary data from the Thailand Multiple Indicator Cluster Survey 2019; the study targeted parents or caregivers of 5,345 young children. Multinomial logistic regression was employed to examine the adoption of parenting styles, estimating relative risk ratios for non-authoritative styles (authoritarian, hybrid, neglectful, permissive) and authoritative style. The study found that caregiver education, income, child gender, and location of residence influenced authoritative parenting. Higher education significantly reduced the adoption of authoritarian and hybrid styles by 70% and 30% compared to having pre-primary or no education. Families with female children were more likely to use authoritative style. Higher wealth favored authoritative style. Single-parent families were more likely to adopt authoritarian style compared to nuclear families. Wealthier households were more likely to adopt permissive style. Households with four-year-olds (compared to those with three-year-olds) and those in certain regions (compared to Bangkok) were more likely to adopt hybrid styles. Additionally, male caregivers were more likely to use neglectful style. Education, income, and region of residence significantly influenced parenting styles. Higher socioeconomic status favored authoritative style, while lower status was linked to authoritarian or neglectful approaches.



# 15:50-16:50 | Orion Hall (5F)

## Monday Poster Session

### Learning Experiences, Student Learning & Learner Diversity

85461 | *The Karuta Project Aiming to Enhance Generative AI Skills of Students and Improve ICT Skills of the Elderly*

Kaoru Mita, Jissen Women's University, Japan

Maiko Oikawa, Yamano College of Aesthetics, Japan

Mika Shirao, Jissen Women's University, Japan

It has been almost two years since the large language model ChatGPT-3.5 appeared, and it is said to have transformed lives globally. However, in Japan, only 35% of companies and 29% of university students use generative AI. Moreover, the main uses for university students are "summarizing papers" and "creating reports", indicating the technology's potential is not being fully realized. The incidence of dementia among Japan's elderly is increasing. By 2025, dementia patients aged 65 and older are estimated to reach 6.75 million (18.5% prevalence rate), meaning about one in 5.4 people will have dementia. Specialists believe acquiring ICT skills may reduce dementia onset. Therefore, some local governments support elderly people in acquiring Zoom skills and providing medical information online. In 2020, we launched the "Intergenerational Exchange Regional Contribution Program Utilizing ICT", facilitating interaction between students and the elderly through ICT. In 2023, using ChatGPT and Canva, students and the elderly created Karuta game cards and held tournaments. In 2024, we plan to expand Karuta themes, and publish the completed Karuta. This activity aims to broaden generative AI skills among young people and achieve dementia prevention and ICT skill acquisition among the elderly. The presentation will outline implementation details and summarize results and future challenges based on surveys with students and the elderly.

### Language Development & Literacy

85462 | *Integrated Japanese-English Language Education: Practical Approaches and Outcomes Utilizing Generative AI*

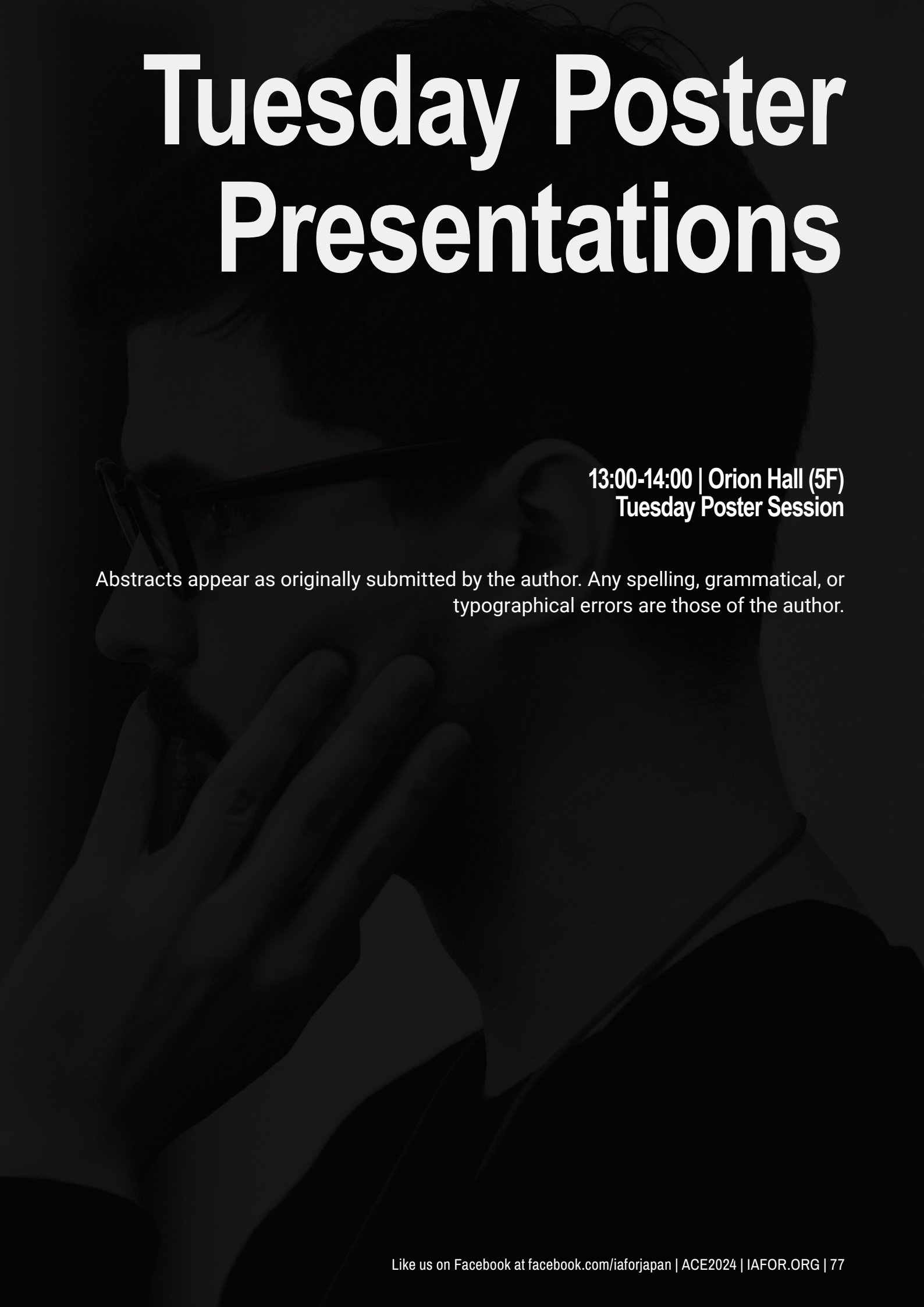
Kaoru Mita, Jissen Women's University, Japan

Misa Otsuka, Jissen Women's University, Japan

In our study, we addressed the challenges first-year university students face in writing courses by integrating Japanese and English language education. High school writing often focuses on subjective essays and entrance exam preparations, leading to psychological burdens at the university level. Additionally, separate teaching methods for Japanese and English writing create confusion. Firstly, we synchronized the timing and content of writing instruction in both languages to enhance comprehension and application. For example, logical development techniques were taught in English classes in April and reinforced in Japanese classes in May. This minimized student confusion and promoted effective learning. Secondly, we developed a test to improve vocabulary skills, aiding students in essay writing. The test consists of these steps:

1. Present English words from the vocabulary book used in English classes with example sentences and have students choose the correct Japanese translation.
2. Display the correct answers and explanations.
3. Provide Japanese sentences containing synonyms of the target Japanese word and have students select the most appropriate sentence using the target word.
4. Display the correct answer and explanations.
5. Have students create Japanese sentences using the target word.

For this test creation, we utilized ChatGPT. Additionally, we used ChatGPT to distinguish between appropriate and inappropriate sentences created by students and incorporated this into the feedback provided to the students. In the presentation, we will introduce the results of this research and discuss future challenges.



# Tuesday Poster Presentations

**13:00-14:00 | Orion Hall (5F)**  
**Tuesday Poster Session**

Abstracts appear as originally submitted by the author. Any spelling, grammatical, or typographical errors are those of the author.

# 13:00-14:00 | Orion Hall (5F)

## Tuesday Poster Session

### Adult, Lifelong & Distance Learning

84625 | *Future Parents' Limited Knowledge About the Effects of Prenatal Stress on the Child: Challenges for Prenatal Education*  
Julie Poissant, Université du Québec à Montréal, Canada  
Yasmine Benard, Université du Québec à Montréal, Canada

A significant proportion of unborn children are exposed to high maternal stress during pregnancy, which may lead to neurodevelopmental difficulties in the child both in the short and long terms. To mitigate prenatal stress, various strategies can be employed, including obtaining information from professionals during prenatal education. However, a large proportion of pregnant women neglect to adopt stress management strategies due to a lack of knowledge about the repercussions for the child. Therefore, this study aims to explore future parents' knowledge regarding the effects of prenatal stress on the child. Individual interviews, approximately 45 minutes each, were conducted with 10 pregnant women and 7 future partners in a region in Québec (Canada). Thematic analysis using NVivo was employed, revealing several key findings. While all participants suspected that prenatal stress likely had effects, none were able to identify them or explain the mechanisms. Several partners were aware that their own stress could increase the stress of the pregnant woman and speculated that it could indirectly affect the unborn child. Moreover, several pregnant women reported feeling guilty and trapped in a vicious cycle (awareness of stress causes more stress). The importance of providing accurate information that engages both partners while avoiding blame will be discussed. These findings provide guidance to professionals responsible for prenatal education on the information they should provide.

### Challenging & Preserving: Culture, Inter/Multiculturalism & Language

83571 | *Enhancing Communication: Understanding Factors Influencing Disclosure of Complementary Therapies Use Among Diabetes Outpatients*  
Hsiao-Yun Chang, Chang Gung University of Science and Technology, Taiwan

Background: With the increasing trend of patients incorporating complementary therapies (CTs) alongside conventional medicine, the lack of communication between patients using CTs and their healthcare professionals can lead to potential risks, including serious drug interactions. Purpose: This study aims to investigate the factors influencing the disclosure of CTs use to conventional healthcare professionals among outpatients with diabetes. Methods: A cross-sectional survey design was utilized to enroll 307 outpatients diagnosed with diabetes from both the northern and southern regions of Taiwan, spanning October 2022 to March 2023. The survey questionnaire covered demographic information, patterns and experiences of CTs use, the Understanding the Benefit-Risks of CTs Use Scale, and the Diabetes Empowerment Scale. Data analysis was conducted using IBM SPSS Statistics version 28.0. Results: Only one-third of diabetes outpatients disclosed their CTs use to conventional healthcare professionals. Factors influencing this disclosure included understanding the benefits and risks of CTs use (OR =1.10), reasons for initial CTs use (OR =1.58), integration of conventional and complementary medicines (OR =15.03), and the use of manipulative-based therapies (OR =6.82). Conclusion: Understanding the factors impacting the disclosure of CTs use is crucial for healthcare professionals. This knowledge enables them to identify patients who may hesitate to disclose their CTs use and ensures a comprehensive understanding of patients' CTs use, thus facilitating effective communication.

### Foreign Languages Education & Applied Linguistics (including ESL/TESL/TEFL)

88165 | *Exploring Authentic English Learning Tasks in the EFL Classroom with KIVA*  
Michael Johnson, Hamamatsu University School of Medicine, Japan

This study set out to explore the efficacy of authentic online instructional materials and tasks in promoting engagement, critical thinking, and international awareness in a small sample of Japanese EFL learners majoring in medical science. The study measured student impressions of, and attitudes towards, tasks related to providing microfinance loans to borrowers in developing countries through the English-medium website of the non-profit organization KIVA. In a modularized CLIL unit, students assessed pools of potential borrowers and extended loans on four occasions. Data related to these tasks were collected using an instrument comprised of ten semantic differential scale items and open-ended items. Results of the semantic differential scale items indicated that students were positively oriented towards these materials and tasks, with participants endorsing their global orientation and meaningful content, as well as their overall importance, positive value, and appeal to interest. The open-ended items further supported positive attitudes towards these materials and tasks, with students finding them an interesting, practical, and novel way to learn about the world while helping others. They also indicated that the process of learning about the situations of people in developing countries while extending loans fostered feelings of personal growth in terms of an appreciation of the hardships faced by people in developing countries, and a newfound desire to be involved in helping others in the future. These results suggest that modularized CLIL EFL instruction utilizing authentic online materials and real-world tasks can offer students rich meaningful educational experiences that transcend the traditional foreign language classroom.



# 13:00-14:00 | Orion Hall (5F)

## Tuesday Poster Session

### International Education

84216 | *My Child is Going Home for University – Transitioning Experiences of Expatriate Parents Living in the UAE*

Rachel Takriti, United Arab Emirates University, United Arab Emirates  
Susan Atkinson, United Arab Emirates University, United Arab Emirates  
Lindsay Schofield, United Arab Emirates University, United Arab Emirates  
Lisa Ramshaw, United Arab Emirates University, United Arab Emirates  
Leanne Shay, United Arab Emirates University, United Arab Emirates

Literature has established that the transition to university is a significant life event which often presents challenges for students and their families. For expatriate families this transitioning experience can be especially complex when the children are planning to return to their home country to study. The current research aimed to investigate the expectations and experiences of expatriate parents living in the United Arab Emirates (UAE) whose children had left to attend university in their home countries. 27 parents completed a questionnaire which included open-ended questions addressing issues relating to level of parental involvement, concerns, and support needs before, during and after the transition to university. These responses were analysed using Thematic Analysis and three main themes emerged from the data: "Is my child good enough?"; "How can we afford this?" and "Settling in". The parents in this study highlighted that their children moving overseas for university suddenly placed them a flight away, had impacted on the family dynamics, particularly for those "left behind" such as siblings, and had considerable financial implications for the family. These findings add to the literature on transitioning by focusing on a specific group whose voices have not previously been heard. The findings are discussed through an ecological systems lens, highlighting areas for potential support services and future research.

88658 | *Racing Against Institutional Time: A Study of Chinese One-Year Master's Returnees' Study Abroad and Job-Seeking Practices*  
Danni Zhang, Peking University, China

This study employs an institutional time perspective to examine the study abroad and job-seeking practices of Chinese returnees from one-year taught master's programs. While existing research often views returnee students as transnational human capital, it seldom focuses on their individual experiences or considers the unique temporal challenges posed by one-year programs during mobility. Through semi-structured interviews with 19 participants, this research reveals that Chinese returnees from one-year taught master's programs face significant time acceleration and compression challenges throughout different mobility phases. These challenges, influenced by the program's duration and domestic campus recruitment timing, affect their decision-making for overseas study, educational experiences, and job-seeking processes. In response, returnees adopt strategies essentially navigating a complex temporal landscape shaped by institutional constraints. This study contributes to the literature on international student mobility by focusing on the unique temporal aspects of one-year taught master's programs and interweaving the processes of studying abroad and job hunting through an employment-oriented perspective. It highlights the complex interplay between institutional time frames and individual strategies in the context of Chinese returnees from one-year master's programs, thereby advancing the temporal dimension in the discourse on international student mobility and labor market transitions.

### Knowledge Creation, Preservation & Access: Curation, Librarianship, Information & Archival Science

84664 | *Sentiment Analysis: User Review Toward ChatGPT as a Tool for Studying Language Patterns and Styles*

Evaristus Didik Madyatmadja, Bina Nusantara University, Indonesia  
Debri Pristinella, Atmajaya Catholic University of Indonesia, Indonesia  
Darren Angwyn, Bina Nusantara University, Indonesia  
Ferris Leroy Winata, Bina Nusantara University, Indonesia  
Tania Crescentia, Bina Nusantara University, Indonesia  
Vivian Olivia Frederica Simanjuntak, Bina Nusantara University, Indonesia

The primary goal of this study is to gather insights about YouTube users' opinions towards ChatGPT with the main features contributing to the users' opinions. The second goal is to determine the overall distribution of positive and negative sentiments within YouTube comments related to ChatGPT. Using web scraping methodology on the YouTube platform, user comments were gathered, cleaned, and subjected to several data preprocessing steps. The model's performance was measured using a confusion matrix. Employing an 80:20 ratio for training and testing data, the Naive Bayes and SVM methods yielded respective accuracies of 72.5% and 75%. Visualization techniques were utilized to ascertain the topics covered by each sentiment expressed in user comments, alongside the features or keywords involved in user opinions. Through this analysis, it was revealed that user comments on YouTube exhibit more positive sentiments toward ChatGPT compared to negative sentiments.

# 13:00-14:00 | Orion Hall (5F)

## Tuesday Poster Session

### Language Development & Literacy

88186 | *Toward a Nation of Readers: Enhancing Literacy Through Effective Teaching Practices and Sustainable School-Home Partnerships*  
Sumaya Saqr, Emirates College for Advanced Education, United Arab Emirates  
Shaljan Areepattamannil, Emirates College for Advanced Education, United Arab Emirates  
Yahia Alramamneh, Emirates College for Advanced Education, United Arab Emirates

Reading proficiency improves with practice, making it essential to identify effective ways to increase this practice. Drawing from the Progress in International Reading Literacy Study (PIRLS) 2016 data, our study explored the relationships between parents' attitudes toward reading, early literacy activities, early literacy tasks, and Arabic reading literacy among Emirati children. The findings demonstrate that positive parental attitudes and active engagement in early literacy activities are significant predictors of children's Arabic reading proficiency. Furthermore, early literacy activities before primary school and mastery of early literacy tasks in the early primary years were both strongly linked to better reading skills in Arabic. These early literacy activities and tasks also mediated the relationship between parental attitudes and children's reading proficiency. Building on these insights, PIRLS 2021 data from 57 countries further underscore the critical importance of supportive home and school environments in achieving reading success. Home support is essential for fostering early literacy skills, while a nurturing school environment significantly enhances reading achievement. This presentation outlines strategies for improving literacy through effective teaching practices and sustainable school-home partnerships. We emphasize the importance of early reading instruction, active parental involvement, and the use of systematic phonics for decoding words. Additionally, we advocate for direct instruction methods in teaching comprehension skills and stress the necessity of prioritizing ongoing reading assessment to ensure these strategies are effective. By fostering strong school-home partnerships, educators and policymakers can create a supportive network that enriches children's reading experiences, contributing to sustained academic success, lifelong learning, and overall literacy development.

### Learning Experiences, Student Learning & Learner Diversity

87057 | *Enhancing Japanese Language Acquisition Through AI-Powered E-Learning: A Focus on Conversational and Listening Skills*  
Michal Macinka, University of Hradec Kralove, Czech Republic  
Stepan Hubalovsky, University of Hradec Kralove, Czech Republic

This research explores the integration of AI-powered e-learning tools to enhance Japanese language acquisition, focusing on conversational and listening skills. By leveraging advanced NLP models, speech recognition, and adaptive learning technologies, an interactive platform that simulates real-life scenarios for language practice is being developed. The platform offers two modes: a messaging interface for written dialogue and a conversation interface for spoken interaction, both guided by AI. This study investigates the effectiveness of these tools in improving students' practical language skills, emphasizing the importance of context and active use over traditional grammar-focused methods. Preliminary results suggest significant improvements in learners' comprehension and speaking abilities, supporting the potential of AI-driven approaches in language education.

83926 | *Deep Learning and Constructive Alignment: Learning to Learn Together in Teacher Education in Taiwan*  
Pao-Feng Lo, National Dong Hwa University, Taiwan

The purposes of this study are: 1. To investigate the influence of deep learning and collaborative learning on learning effectiveness and teaching effectiveness; 2. To build the constructive alignment of professors and students in teacher education and examine the influences of learning community and collaborative learning; 3. To provide evidence-based inquiry and research results with suggestions for stakeholders in teacher education. Research methods include questionnaires, class observation and interviews. The concept of quality learning, including Deep Approach and Surface Approach, was adopted from Biggs' (1987) Study Process Questionnaire (SPQ), and revised to develop as the main instrument. And Collaborative Learning Questionnaire (CLQ) is revised and developed in this study. Research participants include 153 students and 3 professors from teacher education program in Eastern Taiwan. There are several major findings. First, the effects of ascribed characteristics, including grade, college and learning approach on learning effectiveness and teaching effectiveness show significant differences. Second, deep learning and collaborative learning are significantly correlated with learning and teaching effectiveness. Third, the differences between pre-test and post-test of deep learning and collaborative learning are significant. Fourth, college and deep learning can explain 11% of learning outcomes. Fifth, students' grade and cooperative attitude can explain 51% of the variance on teaching effectiveness. Sixth, qualitative result reveals that cooperative learning improves students' participation, cooperative ability and learning effectiveness. These results reflect on the learning and teaching in teacher education which are worthy of discussion and understanding. More implications are provided to contribute in the field of teacher education.

# 13:00-14:00 | Orion Hall (5F)

## Tuesday Poster Session

84117 | *National-Level Cross-Cluster Rotation Training (CCRT) in Obstetrics and Gynaecology (OBGYN): Through the Looking Glass of Residents*

Rachel Phoy Cheng Chun, Singhealth, Singapore  
Manisha Mathur, KK Women's And Children's Hospital, Singapore  
Citra Mattar, National University Hospital, Singapore  
Liyong Yang, Singapore General Hospital, Singapore  
Jill Cheng Sim Lee, KK Women's and Children's Hospital, Singapore

In Singapore, there are 2 sponsoring institutions (SI) under the OBGYN residency program, namely Singhealth and National University Health System (NUHS). The compulsory CCRT exercise was introduced in 2023 as an additional component to the six-year OBGYN residency program. Twelve fifth-year residents (R5) in both SI underwent CCRT in the 2023/2024 academic year. This study aims to explore the R5s' perceived views on CCRT experience. Findings from this study will allow opportunity for better curriculum development at national level. R5s were invited to write a reflection essay on their CCRT experience. Resident identities were anonymized. Using a constructivist approach, these essays were analysed thematically and grouped under the six core competencies of the ACGME. Residents reported medical knowledge gains as each SI had a different spectrum of OBGYN patients. The area of greatest gain was in system-based practice. Residents observed different models of care and reflected on strengths, challenges, and identified areas to benefit patients' care. Residents recognised that CCRT provided lessons that would revise the way they practice in their SI, in keeping with practice-based learning and improvement. In addition, residents reported improved interpersonal communication across institutions and various faculty members. Whilst all residents expressed anxiety prior to CCRT, host programs offered adequate support to visiting residents through close faculty and peer support. Interestingly, there were different opinions regarding the sufficiency of CCRT duration. Overall, the residents agreed that CCRT exercise was a useful and good experience to enrich their existing residency training and further develop their core skills.

85519 | *Mapping the Journey: Self-Directed Language Learning Through Commercial Digital Gaming*  
Hannah Krautinger, National Sun-Yat Sen University, Taiwan

With apps such as Duolingo drawing increasing attention, and educational research honing the potential of digital game-based learning (DGBL) language learning practices have been revolutionized in the past years. However, educational research in the area of DGBL tends to focus on classroom settings, neglecting self-directed language learning (SDLL) and computer-assisted language learning (CALL), which are equally as important and generate large revenue for specialized businesses. Taking a bottom-up approach, this study provides a microview of self-directed language learning through commercial video games. The objective of this study is to better understand learners' motivations and uses of DGBL in SDLL. This study draws on the ADDIE model for instructional design as its main study design. Consequently, the methodology embedded in this model consists of two parts: a content analysis of YouTube gamers using video games to learn languages and an autobiographical case study of learning Korean at a beginner level. Initially, the content analysis reveals gamers' experiences and specific strategies for language learning, which were applied to the following gameplay. Next, an intensive DGBL language immersion case study over two weeks took place, collecting quantitative data on vocabulary acquisition, reading speed, and in-game language efficacy, and qualitative data through observational notes and reflections. The following findings highlight the importance of balancing gameplay with other learning methods, offering practical recommendations such as how the tutorials in games can be used for language learning. Finally, future research should inquire into different CALL integrations and designs in DGBL with a larger group of participants.

88514 | *Exploring the Interplay of Achievement Goal Profiles and Multi-dimensional Science Learning Engagement*  
Tzung-Jin Lin, National Taiwan Normal University, Taiwan

This study investigates the relationship between achievement goal profiles and science learning engagement among Taiwanese high school students. Using latent profile analysis, six distinct achievement goal profiles were identified: low all goals, low mastery avoidance, average high-mid goals, average mid goals, mastery high, and high all goals. The study employed two survey instruments: a five-dimension of the Science Learning Engagement Instrument (SLEI) and a four-dimension of the Goal Orientations in Learning Science Instrument (GOLSI). A sample of 535 high school students participated in the study. Results revealed significant differences in science learning engagement across the six profiles. Students with high all goals demonstrated the highest levels of engagement across all dimensions, particularly in behavioral and social engagement. The mastery high profile showed similar levels of engagement in most areas but lower behavioral and social engagement compared to the high all goals profile. Notably, agentic engagement was consistently low across all profiles, suggesting a cultural or institutional tendency for Taiwanese students to be less proactive in science classrooms. The study also found that students with average high-mid goals showed higher engagement than those with average mid goals in behavioral, cognitive, emotional, and social dimensions. Students in the low all goals profile exhibited significantly lower engagement across all dimensions, with emotional engagement being particularly low.



# 13:00-14:00 | Orion Hall (5F)

## Tuesday Poster Session

88331 | *Effect of Dance Learning Experience on Audiovisual Information and Body Synchrony*

Mizuki Nakajima, Jissen Women's University, Japan

Takeshi Sato, Jissen Women's University, Japan

Hiroyuki Morikawa, Tokyo University of Technology, Japan

Kimie Nakajima, Kiryu University Junior College, Japan

This study aimed to investigate whether dance education experiences have any impact on reaction times and physical synchrony when responding to auditory and visual stimuli. The main focus of this study was on the relationship between auditory and visual stimuli in generating synchronized body movements. The study included 11 healthy adults who were asked to perform knee extension and flexion movements in reaction to visual and auditory stimuli. The stimuli consisted of circles moving up and down at different frequencies, and participants were instructed to perform the movements in response to the stimulus for a period of 1 minute per trial. The presentation of the stimulus was random and occurred at six different speeds: 0.2, 0.4, 0.6, 0.8, and 1.0/1.2 Hz to prevent participants from acquiring a sense of rhythm. The collection of audio and visual stimuli, as well as the corresponding knee joint movements, were continuously documented. This study was demonstrated that reaction times were more rapid when behaviors were prompted by visual stimuli as opposed to a combination of visual and auditory stimuli. Additionally, the study found that reaction time was prolonged when the knee was in an upward position with the knee extended, and in a downward position with the knee bent. These findings were observed in Japan, where dance education has recently been implemented. This suggested that performing the down rhythm of lowering the hips with sound may be more challenging.

88356 | *Promoting Teaching Confidence in Early Childhood Special Education Teacher Training: the Mediation Effect of Reflection*

Hoi Yan Lau, Hong Kong Metropolitan University, Hong Kong

Reflection is an important aspect of teaching practice due to its transformative nature and its support in knowledge development. Engaging in reflection enhances students' learning capacity and teaching confidence. Experiential learning, which involves acquiring knowledge, skills, and values through direct experiences, positively influences educational outcomes. It promotes task awareness, academic self-concept, writing skills, generative knowledge, and understanding the impact of knowledge on behavior, while also fostering teaching confidence. However, further investigation is needed, particularly in Asian populations and special education teacher training, as existing research has primarily focused on Western contexts and mainstream education. This study aims to examine the mediating role of reflective capacity in the relationship between practicum experiences and teaching confidence. The study involves undergraduate students (N = 324, 93.5% female) enrolled in an early childhood education program with a specific focus on Leadership and Special Educational Needs. A post-evaluation is conducted using the Experiential Learning Experiences Scale and Reflective Practice Questionnaire, administered through an online survey after the practicum. The results demonstrate that reflective capacity acts as a mediator between practicum experiences and teaching confidence. Furthermore, the findings highlight the contribution of practicum experiences to the development of enhanced reflective capacity and increased teaching confidence, ultimately benefiting children with special educational needs. This study emphasizes the importance of further research in extracting practical knowledge and reflective experiences in special education from both pre-service and in-service teacher training programs.

## Mind, Brain & Psychology: Human Emotional & Cognitive Development & Outcomes within Educational Contexts

84115 | *The Contribution of Home Literacy Environment and Home Executive Function Environment to Language and Executive Function Skills in Chinese Preschool*

Yui Chi Fong, The Education University of Hong Kong, China

Hai Ning Yuan, The Education University of Hong Kong, China

It's crucial to comprehend the associations between diverse domains of home learning environments and their specific outcomes, and even how they impact each other. However, few studies have explored the influence of home literacy environment (HLE) and home executive environment (HEFE) in the same population, and even fewer have examined the cross-domain relationships between HLE and HEFE and their impact on children's outcomes. We investigated how the HLE and HEFE impact language and EF skills in Chinese preschool children. The study investigated 196 preschoolers (44.9% girls) and their parents in Hong Kong, with children aged 35 to 55 months (M= 45.58 months old, SD=4.293 months). Data were collected through questionnaires and tasks. The results of the cross-sectional analysis showed that HLE uniquely contributes to children's language skills and EF skills in working memory and inhibition control, as well as mathematics skills, while controlling for family SES and HEFE. On the other hand, HEFE uniquely contributes to children's EF skills in working memory and inhibition control, as well as mathematics, but doesn't significantly affect cognitive flexibility and Chinese vocabulary when controlling for family SES and HLE. These findings highlight the diverse impacts which HLE and HEFE fostering children's language and EF abilities, indicating their interconnected and distinct contributions. This research is important for parents seeking to comprehensively enhance their children's language and executive development and improve children's school readiness skills.

# 13:00-14:00 | Orion Hall (5F)

## Tuesday Poster Session

84042 | *Wellbeing in Chinese New Arrival Families in Hong Kong: The Role of Coparenting and Hope*  
Yuhuan Wu, The Education University of Hong Kong, Hong Kong

Little attention was paid to the parents with children who immigrated from mainland China to Hong Kong under talent introduction policies. Furthermore, little was known about the influence mechanism of the interpersonal interaction and individual cognition on the wellbeing of parents. This study aims to verify the path relationship among coparenting behavior, hopeful thinking level, and parental wellbeing in the Chinese new arrival families in Hong Kong. Data were collected by conducting keyword searches on social networking sites and then inviting participants who met the criteria to fill out questionnaires. Bivariate correlation showed positive significant relationships between coparenting, hope level and parental wellbeing ( $p < 0.01$ ). After covariate socioeconomic status, child gender, whether living separately with spouse, and adaptation difficulties, cooperative coparenting of the new arrival parents can predict a higher wellbeing ( $\beta = 0.53$ ;  $p < 0.01$ ). Mediation analyses reveals that no zero was included in the 95% confidence interval of the total effect, direct effect and indirect effect (95% CI = 0.50, 1.24; 0.13, 0.73; 0.23, 0.81 and 0.63, 1.08, respectively). In conclusion, the results revealed that parental wellbeing was associated with coparenting behavior and hope level of the parents, and was particularly influenced by coparenting style between spouses. Parental hope level could be a path from the coparenting to wellbeing even in a challenging situation, suggesting that hope-focused intervention could be an effective way to promote the wellbeing of new arrival families in Hong Kong.

88396 | *The Influence of Health Literacy Dynamics on Self-Care Behaviors in Acute Coronary Syndrome Patients: A Longitudinal Analysis*  
Sun Hyoung Bae, Ajou University, South Korea  
Jin-hee Park, Ajou University, South Korea

This study aimed to explore the longitudinal effects of changes in health literacy on self-care behaviors and health outcomes among patients with acute coronary syndrome (ACS). A longitudinal study was conducted with 177 ACS patients at a university hospital in Suwon, South Korea. Health literacy and self-care practices were assessed at five intervals: baseline (at the time of percutaneous coronary intervention [PCI]) and at three-month intervals over a 12-month period. This design was intended to capture both immediate and longer-term impacts of literacy changes on patient behaviors. Approximately 30% of patients showed significant fluctuations in literacy scores, particularly in the 60-80 age group, where the most pronounced declines were observed. This indicates that a subset of patients experienced meaningful changes in their ability to comprehend and use health information. The strongest correlation between literacy changes and self-care management was observed at the first follow-up (T1), suggesting an immediate impact of literacy shifts on care management. However, overall correlations between literacy changes and self-care behaviors were weak and varied across time points and dimensions of self-care, highlighting the complex interaction between these factors. These findings align with recent literature emphasizing the nuanced relationship between health literacy and self-care. The study suggests that the influence of health literacy on self-care is both heterogeneous and time-sensitive, underscoring the need for targeted interventions. Tailored educational strategies should focus on the early stages post-PCI to optimize self-care behaviors and enhance quality of life in ACS patients.

88300 | *The Application of Jungian-Oriented Art Therapy in Adolescent Education and Counseling in Taiwan*  
Chen Pai Chen, Asia University, Taiwan  
Fu-An Shieh, National Chengchi University, Taiwan  
Chun-Hsien Kuo, Asia University, Taiwan

In Taiwan's educational environment with a declining birthrate, traditional methods of behavioral persuasion and moral instruction have become less effective on adolescents. The growing complexity of their emotional and psychological needs requires educators to adopt more diverse approaches. This study explores the use of Jungian-oriented art therapy in adolescent education and counseling, particularly focusing on its impact on anxiety. Using a qualitative case study method, the research involved a four-week painting intervention, during which two adolescents with anxiety-related academic issues were observed. The findings revealed that art therapy enhanced emotional expression, reduced anxiety and peer pressure, and promoted deeper self-awareness and improved interpersonal relationships. The study also documented the adolescents' artistic creations and the evolution of their self-perception. These results suggest that Jungian-oriented art therapy holds significant potential in adolescent education, aiding educators in understanding students' inner worlds and strengthening the teacher-student support relationship. Future research should explore its applicability across different cultures and develop specific therapeutic tools.

## Primary & Secondary Education

84191 | *Relationship Between Parental Growth Mindset and Children's Academic Emotions: The Roles of Parenting Behaviors and Parental Educational Anxiety*  
Tonghui Huang, The Education University of Hong Kong, Hong Kong  
Xiaozi Gao, The Education University of Hong Kong, Hong Kong

**Objectives:** This study delves into the complex dynamics between parental growth mindset, parental educational anxiety, parenting behaviors, and children's academic emotions within a Chinese cultural context. Recognizing the profound impact of family education on children's development, the research is grounded in intergenerational transmission, social learning, family systems, and sociology theories. The primary goal is to understand how a parent's growth mindset can foster positive academic emotions in children.

**Method:** Adopting a cross-sectional design, the study engaged 110 parent-child pairs from diverse educational backgrounds in China. Data was collected via online questionnaires, assessing parental growth mindset, educational anxiety, and parenting behaviors, alongside children's academic emotions. Path analysis was utilized to explore the intricate relationships between these variables.

**Conclusion:** The findings reveal a significant negative correlation between parental growth mindset and educational anxiety, indicating that parents with stronger beliefs in ability malleability experience less anxiety about their children's education. The study also uncovers an indirect effect of parental growth mindset on children's academic emotions, mediated by parental educational anxiety and behaviors. This suggests that by fostering a supportive and less anxiety-driven home environment, a parental growth mindset can mitigate negative academic emotions in children.

# 13:00-14:00 | Orion Hall (5F)

## Tuesday Poster Session

86749 | *Teachers' Perspectives in Promoting English Listening Skills Among Young Learners in Indonesia*  
Munirotul Fatimah, Universitas Negeri Yogyakarta, Indonesia  
Jamilah Jamilah, Universitas Negeri Yogyakarta, Indonesia

This study aims to explore how teachers' perspectives on improving English listening skills among young learners in Indonesia. In this context, where English is still considered a foreign language (EFL), developing listening skills becomes challenging for teachers. A qualitative approach was used to collect the data through interviews with six teachers from formal and non-formal education settings. The interview results were analyzed using thematic analysis to identify the main themes and patterns. The findings showed that common challenges include students' limited focus during learning, unfamiliarity with English, and lack of listening to learning media. To overcome this problem, teachers implemented strategies such as integrating mostly the English language in class, playing English songs frequently, and doing more kinesthetic activities like games to increase engagement. In addition, the role of parents was highlighted as important in supporting language acquisition. English could be taught at home through direct interaction and the use of child-friendly educational videos. A dual strategy that includes home-based support and school-based techniques is necessary to provide a comprehensive learning environment. This study fills knowledge to inform and improve future educational practices and policies on improving English listening skills among young learners in Indonesia.

## Professional Training, Development & Concerns in Education

84835 | *Simulation-Based Learning (SBL) for Continuous Professional Development: Experiences from a Hospital Setting in Norway*  
Jaroslav Zlamal, Vestfold Hospital Trust, Norway  
Haakon Hovde, Vestfold Hospital Trust, Norway  
Kjersti Sandaker, Vestfold Hospital Trust, Norway  
Torill Andersen, Vestfold Hospital Trust, Norway  
Henny Mari Devold Hagen, Vestfold Hospital Trust, Norway

Simulation-based learning (SBL) has become a cornerstone of professional development among healthcare workers in hospital settings. SBL can be administratively organized in various ways, which may facilitate or limit its potential. At Vestfold Hospital Trust in Norway, SBL is organized around the idea of a "short distance from practice to learning," and the Clinical Simulation Center (CSC) was established to facilitate this practice. The center is strategically located inside the hospital within a short walking distance from hospital wards. Simulation sessions run throughout the calendar year, with the aim of strengthening the competencies of doctors and nurses. A small group of senior facilitators and a secretary are employed full time to handle tasks, such as course facilitation, course administration, facilitator training, and equipment maintenance. Additionally, a network of 118 active facilitators facilitates SBL, both on their own accord and on behalf of the CSC, through on-site and in-situ simulations. At the CSC, we constantly evaluate our practice. Our results show that to this date, out of 104 participants, 90% (94 participants) view SBL as a suitable learning method, while 7% (7 participants) view it as unsuitable. In summary, a simulation center that is an integral part of a hospital and has the overall responsibility to facilitate SBL, contributes not only to securing the professional development of nurses and doctors but also to various additional outcomes, such as cooperation across wards, exchange of knowledge, and experiences.

84608 | *Development of Training Curricula to Improve Engineers' Learning Capacity in Manufacturing Facilities Using the Production System Based on DAPOA*  
Chamnan Ratsame, King Mongkut's University of Technology Thonburi, Thailand

The purpose of this research is to provide production line engineers with knowledge and understanding about how to use electrical energy appropriately in industrial plants. Creation and design and evaluation of training models for industrial production line support systems. The learning model consists of 5 steps: 1).Determination(D), 2).Analysis(A), 3).Planning and design(P), 4).Operation(O),and 5)Assignment(A).These steps was used to design both theoretical and practical learning processes using projects. Twenty industrial engineers wanted to participate in the experiment as a sample group in the research study. During the academic year 2023-2024, there are 20 factory engineers who wish to participate in the experiment as a sample group used in the research study. The examination of operational skills in the classroom and in the workplace is used to measure and assess the competency of the trainees. The pre-service engineers working in both basic and specific knowledge after having passed professional experience practice was higher at significantly statistic of 0.05 level. Performance analysis of the DAPOA learning model shows an average of 80.45/83.95 percent, indicating the importance of engineers in analyzing industrial production support system data. Experts agree that all training procedures are appropriate and the practice manual provided overall satisfaction at an excellent level. The highest level of satisfaction was 4.45, which was in the areas of power distribution measures and air compressor systems.



# 13:00-14:00 | Orion Hall (5F)

## Tuesday Poster Session

85035 | *Promotion of Knowledge and Communication Program on Advance Care Planning Among Nursing Staff at Nursing Home: An Action Research*

Hsu Hui Chen, Chang Gung Memorial Hospital, Taoyuan Branch, Taiwan

Hsiao Yun Chang, Chang Gung University of Science and Technology, Taiwan

Background: The signing rate for advance directives is only 1%, far below the aging population ratio. Promoting advance care planning consultations by nursing home staff is essential to ensure a good end-of-life experience, thereby creating a 3-win situation for patients, families, and society. Objective: This study explores the impact of educational training on nursing home staff's knowledge of ACP and their communication confidence in ACP consultations. Methods: This action research study employed convenience sampling to conduct ACP educational training from September 2023 to March 2024. The program included classroom teaching, videos, role-playing, discussions, and reflections. Data collection and analysis were conducted using the ACP Knowledge Scale and ACP Communication Confidence Scale with pre-tests, post-tests, and follow-up assessments at one and three months. Results: The results of the two action research cycles, analyzed using GEE, showed statistically significant differences in time (Wald  $\chi^2=30.45$ ,  $P=0.000$ ) and group (Wald  $\chi^2=10.74$ ,  $P=0.001$ ). The training effectively improved nursing staff's ACP knowledge and communication confidence. However, there was no significant difference between the two groups (Wald  $\chi^2=0.90$ ,  $P=0.343$ ). Conclusion: Nursing home staff still face many challenges in ACP consultations. It is recommended to regularly conduct ACP in-service training and clinical case discussions to enhance their clinical care abilities and communication skills. This, in turn, can boost their confidence in discussing ACP with residents and their families during clinical care, thereby promoting a peaceful end-of-life care environment in nursing homes.

85516 | *Investigating the Possibility for Serious Game Intervention in Agricultural Extension in Indonesia: A Systematic Literature Review*

Ilhamda El Zuhri, Monash University, Australia

Rangga Alif Faresta, Monash University, Australia

Agricultural training and extension programs in Indonesia have not yet been implemented effectively to increase learner's understanding due to the limitations in terms of capacity of the instructors and facilities during the programs. Serious games have been used as an intervention method in numerous sectors for training purposes. This game is designed with the main goals to achieve educational objectives, particularly in training development programs. The study attempts to assess the potential of serious games as an agricultural training method by examining the instructor's capabilities and the enhancements they promote, based on scientific articles from prior research. This research uses a systematic literature review method with the PRISMA Framework as the protocol. The databases used are Scopus, Crossref, and Google Scholar from 2014–2024 using Perish or Publish software. The keywords used are arranged based on the PICO framework, with a focus on serious game intervention in agricultural extension. Based on the literature study conducted, two main highlights were found. First, serious games have the potential to be an effective intervention in conducting agricultural training, from extension workers to farmers and non-farmers. Second, the use of serious games in the field of agricultural extension and training is still not widely implemented in Indonesia due to the lack of capacity of instructors and training program facilities. Further investigation regarding the use and effectiveness of serious game simulations in agricultural training will be needed to become a study that can be considered by agricultural extension institutions and the government.

87538 | *How Does a Reflection Strategy Foster Learning in Public Health Internships?*

Cecilia Woon Chien Teng, National University of Singapore, Singapore

Raymond Boon Tar Lim, National University of Singapore, Singapore

Claire Gek Ling Tan, National University of Singapore, Singapore

Reflective practice (RP) is an essential skill for professional development. RP fosters self-directed, lifelong learning and facilitates problem-solving, personal development and competence. Despite the benefits of RP and the call for public health professionals to become more reflective practitioners, RPs are often unstructured in higher education, likely due to inconsistent focus placed across public health competency and education frameworks. Using an evidence-based approach, a capstone public health internship course was developed by incorporating a reflection strategy comprising group- and individual-level reflection activities. These activities were designed using the DEAL model by Ash and Clayton (2009) to develop reflection skills. 32 undergraduate students from diverse non-medical primary majors who were reading a Minor or a Second Major in Public Health and were enrolled in the internship course participated in this study. A total of 124 written fortnightly reflections were analysed. Kember et al.'s (2008) four-category framework was applied to analyse reflection depth. Reflections were thematically analysed using a deductive-inductive approach, and the conceptual framework of internship learning goals by Ash and Clayton (2009) was used as a lens for the deductive analysis. The proportion of deeper reflections increased over the course of the internship. Three themes were identified: initial engagement with reflective learning; gradual integration of reflective learning, and a transformative phase involving growth in multiple domains. The study findings affirm the effectiveness of the reflection strategy in scaffolding reflection skills among interns, and guide further development of curricula in nurturing RP in budding public health professionals.

# 13:00-14:00 | Orion Hall (5F)

## Tuesday Poster Session

88024 | *Examining the Challenges in Endoscopy Training in General Surgery Residents: A Qualitative Study*

Irene Ng Ai Ting, Singapore General Hospital, Singapore  
Xinyan Lim, Singapore General Hospital, Singapore  
Beatrice Koh Fang Ju, Singapore General Hospital, Singapore  
Jolyn Pang Hui Qing, SingHealth, Singapore

Gastrointestinal endoscopy is a core skill in General Surgery residency. However, there is no standardized training currently. This qualitative study aims to explore some of the barriers for second-year surgical residents. We conducted an initial survey amongst all residents (n=24) in Singapore General Hospital. This was followed by semi-structured qualitative interviews undertaken by second year surgical residents to determine the barriers they face. All second-year surgical residents (n=6) underwent the interview process from June to August 2024. The key barriers identified were 1) inadequate training opportunities 2) inability to recognize pathologies and 3) difficult skill set to acquire with steep learning curve. Almost all participants explained that inadequate training opportunities were directly related to the high clinical demands, necessitating their presence in other settings such as the operating theatre or non-endoscopy postings. A fully packed endoscopy work list frequently resulted in premature termination of a resident's attempt at endoscopy due to time constraints. The interview results were concordant with the survey results where up to 70% felt that there is inadequate training and endoscopy knowledge. Less experienced residents had more difficulties with the handling of the scope compared to the more experienced, identifying time constraints as the main barrier. This study identifies some challenges in gastrointestinal endoscopy training for surgical residents. However, each of these challenges can be overcome by instituting a standardised endoscopy training program to improve on both knowledge and hands-on training. Future studies can be conducted to evaluate trainers' perspective on the current traditional apprenticeship model.

87869 | *An Ocean Apart, Together in Thought: A Virtual Collaboration Between Kindergarten Teachers in China and Trainers in the U.S.*

William Straits, California State University Long Beach, United States  
Lauren Shea, American University, United States

Our work with teachers in Beijing was eye-opening. In some aspects of their classroom practice, teachers were using methods that were play-based and asset-oriented and that promoted each child's development and learning. But not in science. Teachers viewed science as a body of knowledge and saw science teaching as best accomplished by providing children with experts who could tell or show children science ideas. However, teachers were committed to improving their science teaching, and through our three-year collaboration, were able to move to more effective and developmentally-appropriate science learning experiences. Geographic and linguistic barriers made it difficult to observe teachers' classroom practice, so in our work we focused on lesson planning. We helped our teachers to see goals that included, but reached beyond, conceptual understanding. We emphasized using children's interests as the basis for lessons and following children's leads during lessons. We provided teachers with a model for inquiry science lessons that aligned with these goals, systematically built children's understanding, and allowed flexibility for children's curiosity, explorations, and findings to influence the direction of the lesson. Across all of this work we emphasized professional collaboration among teachers. In this session, we detail our professional development efforts that helped teachers move from teacher-directed, concept-focused science instruction to student-led, skills-based and curiosity-centered inquiry lessons. A model for early childhood inquiry lessons and connections between this model and the goals for early childhood science will be described. We also discuss the joys and challenges of providing international and virtual professional development.

## Teaching Experiences, Pedagogy, Practice & Praxis

82508 | *Impact of Game-Based Learning on Polytechnic Year 1 Students' Motivation and Academic Achievement in Good Dispensing Practice*

Yin Ni Annie Ng, Nanyang Polytechnic, Singapore

This study examines the effectiveness of game-based learning on first-year polytechnic students' intrinsic motivation and academic performance in the Good Dispensing Practice module. Using an equivalent time series design, the research employs a within-group, repeated post-test-only methodology to analyze the influence of game-based learning over time. The assessment protocol consists of three intervention post-tests and three non-intervention post-tests, following a pattern of no treatment, treatment. Preliminary findings suggest a positive trend in students' performance, with the most significant improvements observed in the final treatment session, indicating a substantial enhancement compared to the initial quiz. Additionally, a positive correlation emerges between students' intrinsic motivation levels and their achievements in the final post-test, highlighting the potential of heightened motivation to improve academic success. Furthermore, students exposed to the intervention demonstrate significantly elevated levels of task value, underscoring a deeper appreciation for the relevance of the educational tasks. These results underscore the potential of game-based learning to enhance both intrinsic motivation and academic achievement among first-year polytechnic students in the Good Dispensing Practice module. These insights hold implications for educators aiming to leverage innovative teaching methods to foster motivation and academic excellence in similar educational contexts.

# 13:00-14:00 | Orion Hall (5F)

## Tuesday Poster Session

84862 | *Bridging the Gap Between Theory and Practice: Innovative Exploration of the "Happiness Equation" Social Practice Teaching Model*  
Shiu-Wan Hung, National Central University, Taiwan  
Jyun-Hao Jian, National Central University, Taiwan

The gap between theory and practice has long been a significant challenge in the field of education. Traditional teaching methods, which rely heavily on theoretical lectures, often fail to stimulate students' interest in learning and develop their practical abilities, resulting in poor learning outcomes. To address this issue, this study proposes an innovative "Happiness Equation" social practice teaching model. This model aims to integrate theoretical knowledge with practical application in university management courses. The study is conducted in three steps. First, using design thinking and problem-based learning methods, students apply theoretical knowledge to solve real-world problems in the classroom. Second, the Happiness Diffusion Index is created to evaluate changes in students' learning behavior and effectiveness. Finally, surveys are conducted, and SPSS and AMOS statistical software are used for data analysis to verify the research hypotheses. The results indicate that students are generally satisfied with this new teaching model. They actively participate in class discussions and practical activities, demonstrating increased creativity and initiative. Overall learning effectiveness has significantly improved, laying a solid foundation for their future career development. This model successfully bridges the gap between theory and practice, enhancing students' interest in learning, practical abilities, and happiness. It also has the potential to be extended to more disciplines and educational stages in the future.

84669 | *Bridging the Gap: A Comprehensive Approach to Pharmacy Education Through Simulated Patient Cases and Database Teaching*  
Hsuan-Yu Yu, Ditmanson Medical Foundation Chia-Yi Christian Hospital, Taiwan  
Hsin-Hui Su, Ditmanson Medical Foundation Chia-Yi Christian Hospital, Taiwan

Pharmacy education faces the challenge of translating theoretical knowledge into practical application. The course "Drug Information" is crucial for preparing students for clinical internships, requiring an innovative approach to bridge the knowledge-to-practice gap. Our course, "DRUG INFORMATION," adopts a unique teaching methodology using a consistent simulated patient to simulate diverse clinical problems. This immersive approach develops essential problem-solving abilities and communication skills. The curriculum covers clinical common problems, pharmaceutical databases, disease databases, medical databases, legal payment restrictions, public health education information, and electronic databases, including health education leaflet design. Post-class homework replaces traditional examinations, reinforcing practical application. Feedback from 92 out of 110 pharmacy students reveals the effectiveness of our teaching model. Notably, 83.7% emphasized the importance of hands-on practical exercises, affirming the necessity of practical experience. Additionally, 76.1% highlighted the significance of clinical case studies, while 72.8% emphasized the importance of the continuity of clinical cases. The majority of students could locate the relevant database by accurately identifying prospective or background issues. Our teaching model successfully addresses the connection from theoretical knowledge to practical problem-solving. The emphasis on practical experience resonates with students, as reflected in their high satisfaction levels. This unique approach not only meets the educational needs of pharmacy students but also contributes to their overall understanding and readiness for real-world challenges.

81596 | *Investigating the Impact of Collaborative Learning Approaches on Students' Self-Regulation and Academic Performance*  
Jayden Ang, Nanyang Polytechnic, Singapore  
Yin Ni Ng, Nanyang Polytechnic, Singapore  
Lilian Qiau He Huang, Nanyang Polytechnic, Singapore  
Wei Xiu Sung, Nanyang Polytechnic, Singapore

Self-regulation is vital to learning due to its positive relationship with academic performance. Hence, it is imperative to understand how students' academic performance can be enhanced by improving their self-regulation through designing and integrating active learning approaches capable of enhancing self-regulation. Collaborative learning is one of the most effective active learning approaches and provides an effective learning experience. Although some studies reported that collaborative learning develops and supports self-regulation through enhanced motivation, they focused on using personal strategies (i.e. time-management, and help-seeking). Research on learning approaches or activities to improve self-regulation is rare. This study aims to investigate the impact of collaborative learning activities on students' self-regulation and academic performance in the applied sciences context through an education design research approach. Three collaborative learning activities (collaborative error analysis, rise-above, and collaborative games) were implemented across three applied science courses. A mixed-method, equivalent time series design was employed. The Motivation Strategies for Learning Questionnaire was used to measure self-regulation while post-test scores were utilised to determine academic performance. Results from all three courses showed a significant increase in academic performance (up to 42% increment for one course) and students identified strongly with domains of the questionnaire including task value, control of learning beliefs and metacognitive self-regulation. These results are supported by students' feedback and despite collaborative learning activities requiring more effort from them, they chose to persevere through the activity. Based on the results, design principles to enhance self-regulation and academic achievement through collaborative learning activities were derived and proposed.



# 13:00-14:00 | Orion Hall (5F)

## Tuesday Poster Session

85571 | *Development of Behavior Regarding Socially Responsible Entrepreneurship Skills for Undergraduate Students in Bachelor of Education According to the Concept of Sustainable Corporate Development (ESG)*

Suwicha Wansudon, Srinakharinwirot University, Thailand

Trai Unyapoti, Srinakharinwirot University, Thailand

Phatcharida Inthama, Srinakharinwirot University, Thailand

Ponpeera Wongpornpratheep, Srinakharinwirot University, Thailand

A study of the behaviour of undergraduate students in the graduate education programme in terms of the development of socially responsible entrepreneurial skills. It is a mixed-methods investigation that is based on the concept of sustainable corporate development (ESG). The investigation utilises both quantitative and qualitative research methodologies. Investigate the concept of integrated learning management. Technology utilization is critical for both project-based learning and learning management. We encourage students to develop the skills they need to become socially conscious business owners. Students acquire knowledge independently by adhering to the principles of sustainable corporate development (ESG). This is a conceptual framework for research. The sample group consists of 100 individuals, including teachers, educational personnel, and students, who were selected through purposive sampling after analysing the perspectives of informants affiliated with institutions that train teachers in four regions of Thailand. The research employs four distinct kinds of instruments. These are questionnaires and interviews. Basic statistics were implemented to analyse the data. The research findings revealed that entrepreneurial talents who prioritise social responsibility stand out. The following are the eight components: 1) Business operations that are equitable 2) Anti-corruption 3) Adherence to human rights 4) Equitable labour practices 5) Consumer accountability 6) Participating in community or social development; 7) Disseminating innovations from social responsibility implementation; and 8) Ensuring environmental care and resource utilization are efficient. The development has been improved.

83946 | *Evaluation of Meaningful Learning in a World Café and Maker Education Context*

Po-Sheng Chiu, National Chiayi University, Taiwan

In recent years, makerspace research has been growing due to the maker movement. Makerspaces provide a learning environment in which students can obtainmaker education. In particular, the World Café focuses on sharing and exploring ideas, and participants are able to express their views. However, no previous research has been conducted using meaningful learning to investigate the World Café method in amakerspace learning environment. To understand the educational potential of this approach, the study is aimed toward an investigation of gender differences and the impact of the World Café method on students' learning achievement and meaningful learning in the area of maker education. A one-group pretest-posttest nonequivalent-groups design method is used comprising 53 college students (males=27; females=26) who take the course and then complete a questionnaire before and after the World Café method is applied. The results showed improvements in the students' learning achievement and meaningful learning was acquired using the World Café method. There was a significant difference in learning achievement based on gender, but the meaningful learning questionnaires showed that this gender difference didn't reach significance. This study revealed that the World Café method may be appropriate for learning by doing subjects, and future research can continue to explore more STEM/maker education.

88616 | *Revitalizing the Memory and Skills of Traditional Tribal Songs Through Digital Technology and Blended Learning*

Liao Yuan-Hsuan, National Taiwan Normal University, Taiwan

Traditional songs of Taiwan's indigenous people carry the history and cultural memory of their ethnic groups. The Amis people often use singing to communicate and convey emotions during weddings, funerals, celebrations, and daily life. However, with rapid economic development and changes in social structure, indigenous communities face challenges such as population migration, aging, and the successive loss of oral tradition bearers. Consequently, the traditional music culture is facing a rapid crisis of loss. The Covid-19 pandemic has further impacted the construction and transmission of tribal knowledge systems. This study employs digital imaging and communication technology to collect songs and dances from the memories of elders, aiming to preserve and promote the transmission of musical culture through digital learning. The research is divided into two stages: first, field collection from tribal elders, and then conducting learning activities with internal and external tribal members through synchronous, asynchronous, and blended learning methods, facilitating the circulation and sharing of Amis traditional songs. The results indicate that diverse and flexible digital learning methods can better meet the needs of tribes facing population migration and aging, providing a means for community co-learning and promoting the sustainable transmission of cultural diversity. Additionally, enhancing the singing abilities of tribal youth and adolescents helps them demonstrate cultural identity and confidence.

88465 | *Using Fundamental Nursing Skills in a Hospital Setting During a First-Year Internship for Nursing Students*

Feng-Chi Wen, Taipei Medical University-Shuang Ho Hospital, Taiwan

Hsin I Yung, National Taipei University of Technology, Taiwan

The purpose of this study was to determine how first-year post-college nursing students use their foundational knowledge of nursing in clinical settings after finishing their basic nursing course. This study, which involved seven nursing students with an average age of 31.4 years, was conducted in 2024 from June 17 to June 27. They are willing to enter the nursing sector and have at least a bachelor's degree. They visited a northern Taiwanese medical center's ward. To look at the learning environment, a researcher created a questionnaire with ten questions on the first day of the internship. The findings, five students enrolled in post-baccalaureate nursing because it piqued their interest, two students were over 40, and seven students studied a major unrelated to nursing. The teacher's demonstration of practical skills was well-received by seven students. The researchers employed peer leadership, group discussions, case study sharing, demonstrative teaching, and one-on-one counseling. Clinical knowledge tests using the Blooket game, practice time accumulation, and practical skills like nasogastric tube feeding and care, vital sign measurement, oral administration, intravenous infusion administration, and fingertip blood glucose testing were among the methods used to assess the students' abilities. Two students could complete five items, and five students completed four items, yielding an 85.7% skill implementation achievement rate. Even if they approached learning with a good mindset, older kids require more time and careful attention because they learn more slowly. Based on empirical evidence, students with backgrounds outside of nursing may mostly acquire fundamental nursing skills with the right instruction and hands-on experience.

# 13:00-14:00 | Orion Hall (5F)

## Tuesday Poster Session

88435 | *Moderating Effects of Cognitive Load and Learning Engagement on Self-Regulated Learning Motivation and Academic Achievement*

Wen-Liang Chang, National Taipei University of Technology, Taiwan  
Ming-Hsiu Tsai, National Taipei University of Technology, Taiwan  
Cheng-Hung Weng, National Taipei University of Technology, Taiwan  
Hong-Zhe Zheng, Tuyakar Elementary and Junior High School, Taiwan

This study investigates the moderating effects of increased cognitive load and learning participation on the relationship between autonomous learning motivation and academic achievement. The research was conducted with seventh-grade students from a junior high school in Taiwan, who underwent a six-week teaching intervention. The intervention incorporated strategies to increase cognitive load during lessons. Data were collected using the Autonomous Learning Motivation Scale, Cognitive Load Scale, Learning Participation Scale, and Academic Achievement Test, and were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results revealed that: (1) autonomous learning motivation significantly positively impacts academic achievement; (2) increased cognitive load positively moderates the relationship between autonomous learning motivation and academic achievement; and (3) learning participation also positively moderates this relationship. These findings underscore the value of incorporating cognitive load and fostering learning participation in teaching. It is recommended that educators focus on providing appropriate scaffolding, guiding students toward higher-order cognitive processing, and creating interactive and engaging learning environments to enhance students' autonomous learning motivation and academic achievement.

88305 | *An Exploratory Study on the Factors Influencing the Acceptance of Invention Classes Utilizing Generative AI*

SungAe Kim, Duksung Women's University, South Korea  
Suna Bae, Jeonju National University of Education, South Korea  
Dasol Kim, Daejeon Saemirae Middle School, South Korea  
Seung-Hyun Kim, Daejeon Saemirae Middle School, South Korea  
Young-Jae Song, Haenuri Middle School, South Korea

This study explores the factors influencing the acceptance of generative AI in invention classes, applying the Unified Theory of Acceptance and Use of Technology (UTAUT). The research focuses on critical determinants such as performance expectancy, effort expectancy, social influence, and facilitating conditions, all of which were found to positively impact teachers' intention to adopt generative AI in invention education. Participants included teachers who underwent 15 hours of training on integrating various AI tools—conversational AI, image generation AI, blueprint design AI, and video generation AI—into invention classes. The findings suggest that the effective use of generative AI in educational settings can be facilitated by improving teacher support, training, and understanding of its potential benefits. This study provides valuable insights for future implementation strategies, helping educators effectively incorporate emerging technologies like generative AI into STEM and invention-based curricula.

88408 | *Enhancing Student Engagement in Higher Education Classrooms Through Deep Learning Principles*

YanJun Zhou, Guangxi College for Preschool Education, China  
Xiaopeng Gong, Western Oregon University, United States

This paper examines how deep learning theories and related strategies can be applied to boost student engagement in higher education classrooms. As educational technology evolves and the demand for skilled professionals rises, the traditional teaching methods have struggled to meet the learning needs of modern students. To address this, innovative approaches are required to inspire students' motivation. Deep learning, which involves higher-level cognitive processes, encourages critical thinking, knowledge transfer, and innovative application, offering new perspectives for reforming classroom practices. This paper will propose several strategies for inspire students' motivation. First of all, establishing challenging goals will spark students' curiosity and drive for exploration. Additionally, creating learning environments will promote critical understanding by incorporating diverse viewpoints, case studies, and other methods to enhance students' critical thinking skills. Furthermore, integrating meaningful and interconnected content through interdisciplinary approaches and project-based learning will help students build a comprehensive knowledge network. Finally, employing instructional design techniques such as the ARCS model will make courses more engaging and maintain students' attention and participation.

88478 | *Teaching Self-Regulated Learning in Science: Perspectives from Taiwanese High School Teachers*

Tzu-Chiang Lin, National Kaohsiung University of Science and Technology, Taiwan

Self-regulated learning (SRL) has emerged as a prominent research topic in educational studies in recent years. The core concept of SRL primarily explores how learners transform their cognitive abilities into academic achievements and skills through a self-directed process. While the academic community widely acknowledges the benefits and importance of constructivist-based SRL in science education, and relevant literature is abundant, existing studies predominantly emphasize the learner's perspective. Although some scholars have examined how teachers, particularly science teachers, can "teach" SRL within their instructional practices, research outcomes in this area remain less comprehensive than those focusing on learners. A review of the literature on SRL reveals that the academic community has rarely conducted meta-analyses concerning teaching, teachers, and teacher education within this context. This observation underscores the need for further research on SRL centered on teachers. Grounded in this premise, the present qualitative study investigates high school science teachers' Conceptions of Teaching Self-Regulated Learning (COTSRL) through in-depth interviews. By examining teachers' perspectives on integrating SRL strategies into their science instruction, this research addresses the gap in teacher-focused studies within the literature, potentially informing future teacher education and professional development programs. Based on the study's findings, this research offers valuable insights to academics, educators, and education policymakers, delineating approaches to enhance science instruction by effectively incorporating COTSRL.

## 13:00-14:00 | Orion Hall (5F)

# Tuesday Poster Session

88808 | *Contextualizing Entrustable Professional Activities for Competency-Based Assessment in Taiwan's Post-Graduate Year Medical Training*

Hsu Chihming, Chiayi Chang Gung Memorial Hospital, Taiwan

**Background:** The introduction of a 2-year postgraduate year (PGY) training program for general medicine in Taiwan in 2019 necessitated the development of appropriate competency-based assessment tools. The Entrustable Professional Activities (EPAs) framework established by the Association of American Medical Colleges (AAMC) presents a structured approach to evaluating clinical competencies.

**Objective:** This study aimed to contextualize the 13 Core EPAs proposed by the AAMC and construct an EPA-based assessment framework tailored to the Taiwanese PGY program.

**Methods:** Employing the nominal group technique, a multidisciplinary panel comprising 13 clinical faculty members, 8 resident physicians, and 13 PGY trainees engaged in discussions to reach a consensus on the essential professional tasks encompassing the medical student to PGY trainee continuum. After reviewing the AAMC's EPAs, 34 experts ranked the identified tasks based on importance through voting and scoring on a 5-point scale. Subsequently, real-time EPA assessment forms were developed and validated during objective structured clinical examinations (OSCEs) for PGY trainees.

**Results:** A consensus was reached on 42 EPA themes, categorized into seven major domains: receiving new patients, interpreting and managing examination reports, handling common complaints, identifying and managing critical patients, preparing for ward rounds, explaining general medical conditions and obtaining consent, and performing general procedural skills. Specific task descriptions, evaluation criteria, and assessment forms were created for each EPA.

**Significance:** This study contextualized the AAMC's EPA framework to the Taiwanese healthcare setting, providing a competency-based assessment structure tailored to the PGY program. The developed EPA-based assessment tools can inform curriculum design and facilitate the evaluation of trainees' clinical competencies, ultimately enhancing the quality of post-graduate medical education in Taiwan.





# Tuesday, November 26

## Parallel Sessions

**All times are Japan Standard Time (UTC+9)**

Abstracts appear as originally submitted by the author. Any spelling, grammatical, or typographical errors are those of the author.

14:10-15:25 | Room 603 (6F)

# Tuesday Onsite Parallel Session 1

## The Teaching of Social Studies

### Session Chair: Huda Alazmi

**14:10-14:35**

87201 | *Analysis of the Need for the Development of Research-Based History Learning Models in Higher Education with the TPACK Approach*

Asyrul Fikri, Riau University, Indonesia

21st century learning requires the use of models that take advantage of technological advances, especially in supporting research and research. The research-based history learning model with the TPACK approach is one of the models that can be used to support history learning. The purpose of this study is to analyze the need for the development of a research-based history learning model with the TPACK approach. The research method used is R&D using only one stage, namely the analysis stage. The participants of this study consisted of 27 lecturers and 107 students. The data collection technique of this study uses observation, interview, and questionnaire dissemination techniques. The data analysis used in this study only uses qualitative data to describe the need to develop a research-based learning model with the TPACK approach in history learning. The results show that the implementation of RBL is very important to support the tridharma of lecturers and local history learning, although the needs analysis shows that the application is not yet clearly visible in the lecture materials and outputs, so it is necessary to develop a more effective and relevant model to the local context. Study program students want to use lecturers' research results as a reference, and with digital support through TPACK, learning can be more dynamic, facilitate the integration of theory with real practice, as well as improve historical thinking skills and enrich student learning experiences.

**14:35-15:00**

87206 | *Perception of History Education Students on the Use of Virtual Reality Tour 3D Media of the Wings Palace in Pelalawan*  
Bunari Bunari, University of Riau, Indonesia

The use of Virtual Reality (VR) technology at the university level, especially in the field of historical studies, is an alternative solution to make history learning fun and not boring. This article aims to see how History Education Students Perceive the Use of Virtual Reality Tour 3D Media Istana Wing. The research method used was an in-depth survey and interview with 100 history education students of the University of Riau. The survey results show that the majority of students have a positive perception of the use of the 3D Virtual Reality Tour Media of Istana Wing, considering it more interesting, effective, and attractive compared to conventional media. Despite this, technical and comfort challenges are still a major concern. This article provides comprehensive insights into the benefits, challenges, and expectations of students towards the use of VR in history learning, and highlights its implications for future educational development. But the most important thing is that students find the deep meaning and meaning of every historical event through historical relics.

**15:00-15:25**

83505 | *Social Studies Teachers Experiences in Teaching Spatial Thinking in Social Studies Classrooms in Kuwait: Exploratory Study*  
Huda Alazmi, Kuwait University, Kuwait

Social studies educational research has, so far, devoted very little attention towards spatial thinking in classroom teaching. To help address such paucity, this study explores the spatial thinking instructional experiences of middle school social studies teachers in Kuwait. The goal is to learn their teaching practices and assess teacher understanding for the spatial thinking concept to enable future improvements. Using a qualitative study approach, the researcher conducted semi-structured interviews to examine the relevant experiences of 14 social studies teachers. The findings revealed three major themes: (1) concepts of space, (2) tools of representation, and (3) spatial reasoning. These themes illustrated how social studies teachers focus predominantly upon simple concepts of space, using multiple tools of representation, but avoid addressing critical spatial reasoning. The findings help explain the current situation while identifying weaker areas for further analysis and improvement.

**14:10-15:25 | Room 604 (6F)**

# **Tuesday Onsite Parallel Session 1**

## **Collaborative Learning**

**Session Chair: Santiago Moll-Lopez**

**14:10-14:35**

87139 | *Peer Learning Framework in the New Normal*

Maculeta Omiles, University of the City of Manila, Philippines

Eufrecina Jean Ramirez, Centro Escolar University, Philippines

The educational system has changed globally after the COVID 19 pandemic. In this paradigm shift, keeping the students engaged in virtual classroom activities is a challenge. This study aimed to address this challenge by proposing a framework for Virtual Peer Learning through testing Peer Learning Model to forty second year engineering students enrolled in physics at Pamantasan ng Lungsod ng Maynila during the second semester of school year 2021-2022. Guided Peer Discussions method was applied using Virtual Think-Pair-Share and Virtual Gallery Walk as teaching strategies. Convergent-parallel mixed research design was used to analyze both the quantitative and qualitative data. Quantitative findings revealed that the overall level of online engagement and participation is Highly Engaged (TMR = 97.7, SD = 9.592), students' evaluation on teaching strategies was Very Good (MPR= 94.0, SD = 0.472), and the students' learning competencies was observed to be Good (MPR = 84.5, S.D. =13.04). Qualitative data were coded and arranged by themes. In the thematic analysis of the data, three major themes were defined based on the literature and nine sub-themes emerged in describing the experiences of the participants as exposed to Guided Peer Discussions. Based on the findings, six factors were identified to have affected the peer learning: technical issues, affordances of LMS, peer relationships, student-teacher relationships, design of suitable learning activities and assessments, and teacher's instructional strategies. The findings in this study provided valuable input in the development of the Virtual Peer Learning Framework.

**14:35-15:00**

82778 | *Promoting Diversity of Opinion in Collaborative Learning Enhances Student Learning on Conservation*

Ian Z. W. Chan, National University of Singapore, Singapore

The use of pedagogical techniques to promote collaborative learning has potentially wide-ranging social, psychological and academic benefits, including enhancing student motivation and learning. However, many factors surrounding forming and working in groups can affect the effectiveness of collaborative learning. Unfortunately, many of these factors are generally poorly researched and it would benefit educators to develop a better understanding of these issues. One such factor is how the presence (or absence) of strong diverse opinions in groups—which is often seen as a challenge to be overcome through collaborative learning (e.g. see the Jigsaw method)—affects eventual academic outcomes. In this study, I compared the learning outcomes of two cohorts of undergraduate university students: one cohort (n = 45) where students formed groups whose members had highly diverse opinions on conservation solutions (based on dimensions developed by Sandbrook et al., 2019), and one cohort (n = 42) where students formed more homogenous groups with lower diversity of opinion. Students in the cohort with diverse opinions were better able to achieve the course's learning outcomes (P = 0.037), specifically performing better in communication-oriented learning outcomes (P < 0.001). These results suggest that having group members with diverse strong opinions is not necessarily a limitation. Conversely, when managed well, encouraging diversity of opinion in collaborative learning can enhance academic performance, even at a tertiary level.

**15:00-15:25**

86333 | *Harnessing the Power of Collaboration: Transforming Higher Education Through Group-Based Learning and Assessments*

Santiago Moll-Lopez, Technical University of Valencia, Spain

Erika Vega Fleitas, Technical University of Valencia, Spain

Adolfo Nuñez Perez, Technical University of Valencia, Spain

Luis Manuel Sánchez Ruiz, Technical University of Valencia, Spain

Collaborative learning is a cornerstone of effective education, promoting a supportive environment where the collective strength of the group overcomes individual weaknesses. This study explores the implementation of various collaborative learning strategies in higher education, including group games, exam retakes, and collaborative exercises, to enhance student engagement and academic performance. Conducted at the Universitat Politècnica de València with 250 students from diverse disciplines, the research employed a mixed-methods approach. Students participated in online and in-class role-playing games (RPGs) designed to foster teamwork and critical thinking. Additionally, exam and exercise retakes were structured in groups of four, where group performance was rewarded if it surpassed individual efforts, thus encouraging collaboration over competition. Quantitative analysis revealed significant improvements in student engagement and academic performance, with higher overall grades in collaborative settings compared to individual assessments. Qualitative feedback from students emphasized the benefits of a non-competitive learning environment, including increased motivation, improved communication skills, and a stronger sense of community. Students appreciated the opportunity to learn from their peers and felt more supported in their academic endeavors. This study demonstrates the effectiveness of collaborative learning strategies in higher education. By fostering a non-competitive environment where group success is valued over individual achievement, educators can enhance engagement, participation, and deep learning. The paper concludes with practical recommendations for integrating these collaborative methods into curricula, aiming to build a more inclusive and effective educational experience.



**14:10-15:25 | Room 605 (6F)**

# **Tuesday Onsite Parallel Session 1**

**Counselling, Guidance & Adjustment in Education**

**Session Chair: Mehtap Sezgin**

**14:10-14:35**

85542 | *Understanding Help Seeking Behaviour Among Filipino University Students*  
Luzviminda Uy, De La Salle University - Manila, Philippines

There is an increase of mental health concerns among university students, compared to previous generations, as relationships and academic demands become more complex. The researchers explored students' perceptions and the experiences they go through in seeking help, specifically problem awareness, decision to seek help and support system. 14 respondents from different colleges and universities in Metro Manila participated in this qualitative study. Thematic analysis was used to process data gathered from the interviews. Key results were: help-seeking can come from both informal (family and friends) and professional help (counselors, psychologists), one's outlook towards help-seeking can be connected to the individual's decision to seek help and quality of support system is evident in the process of help-seeking, from problem recognition to decision to seek help. Hence, help-seeking behavior is an important psychological process to understand to effectively deliver counseling services and advocate progressive mental health programs in our universities and counseling centers. The findings highlight the crucial role of practitioners and policy makers to explore the relevance of its guidance programs in relation to the needs of the stakeholders, university students.

**14:35-15:00**

84535 | *A Qualitative Inquiry on the Experiences of University Counselors on Synchronous Telecounseling Using Video Conferencing*  
Rosemarie Tayoto, De La Salle University, Philippines  
Joel Navarez, De La Salle University, Philippines  
Jay Diaz, President Ramon Magsaysay State University, Philippines  
Amir Canlas, University of the Assumption, Philippines

The provision to conduct counseling sessions in a technologically assisted platform is relatively new in school counseling services in most Colleges and Universities in the Philippines. Yet, with the increasing demand for mental health support due to the immense stress and anxiety brought on by the pandemic, school counseling offices transformed their counseling programs into an online platform. The study aimed to explore the experiences of school counselors in conducting synchronous telecounseling using videoconferencing with their students during the pandemic in the tertiary level institutions in the Philippines. A qualitative approach framed and guided the research inquiry (Creswell, 2014). Purposive and convenience sampling methods were used to select the ten (10) participants for the study who are licensed counselors, have been working in either public or private Colleges or Universities, and have also practiced full-time online counseling for at least one semester or have at least one (1) continuing client that has participated in synchronous telecounseling sessions using a video conferencing platform (Etikan et al, 2016; Campbell et al., 2020). Three (3) groups with 2 to 5 participants each participated in the focus group discussion (FGD) through a video conferencing platform. Semi-structured interviews were the data source for analyzing the participants' synchronous telecounseling experience. The interview responses were subjected to thematic analysis that reflexively evaluated the major emerging themes (Braun & Clarke, 2006). The findings provide relevant information about the development of training, awareness-raising, and skills-enhanced interventions for school counselors and other implications for the school counseling profession in general.

**15:00-15:25**

87776 | *Examining the Effectiveness of Group Guidance After the 2023 Kahramanmaraş/Turkey-centered Earthquake*  
Mehtap Sezgin, Ankara Social Sciences University, Turkey  
Kadriye Karagülmez, Ankara Social Sciences University, Turkey  
Ayşe Atav, Ankara Social Sciences University, Turkey

In 2023 Kahramanmaraş-centered earthquake profoundly affected many individuals in Turkey. Following the disaster of the century, it is seen that all of the students are psychologically damaged and in need of support. This study looks into how a specially designed group guidance program can help students recover emotionally after the earthquake, addressing their need for support during this tough time. This research aims to examine the impact of group guidance program prepared by researchers for the psychological support of the university students after the earthquake. The single group posttest experimental model was used in the research. The study group consists of 239 university students between the ages of 18-54, with an average age 22, continuing their education in the spring term of the 2022-2023 academic year. In the study, the Personal Information Form developed by the researchers to learn demographic information of the participants. Moreover, the Group Guidance Evaluation Survey Form developed by the researchers were used to examine whether the group guidance program was useful for the students. The group guidance program covers information about the earthquake, common emotions experienced after the earthquake, and the BASIC PH coping skills suggested by Mooli Lahad et al. Descriptive analysis was employed to evaluate students' perspectives on the effectiveness of group guidance program. SPSS 22.0 was used for the analysis. Analysis of the results revealed that, the effectiveness of group guidance as psychological support for recovery after the earthquake.

14:10-15:25 | Room 607 (6F)

# Tuesday Onsite Parallel Session 1

## Education & Difference

### Session Chair: Raushan Jumaniyazova

14:10-14:35

86975 | *Evaluate an Online Intervention to Promote Safe and Effective Social Media Use Among Autistic Young Adults: A Cluster RCT*

Phil Wai Shun Leung, The University of Hong Kong, Hong Kong

Shirley Xin Li, The University of Hong Kong, Hong Kong

Carmen Sze Oi Tsang, Haven of Hope Christian Service, Hong Kong

William Chi Wai Wong, The University of Hong Kong, Hong Kong

Social media can be a tool which potentially helps autistic people connect with friends and broaden their social network, but its use can produce both opportunities and risks including cyberbullying. The present study aimed to design and evaluate a tailor-made online intervention to promote safe and effective social media use among autistic young adults in Hong Kong. This research was conducted with collaboration of three local community centers working for autistic young adults (aged 18-39 years old) who were of normal intellectual level. Intervention was designed based on previous results of systematic literature review and qualitative research. Using a clustered randomized control trial design, participants who were randomly assigned to the experimental group received a three-session online workshop to promote skills and risk awareness concerning safe and effective social media use; while those in the control group received standard treatment in their centers. A total of 34 young adults were recruited in three local community centers. Results showed that those in the experimental group (n=16) reported higher level of perceived self-efficacy in safe and effective social media use after completing the intervention, compared with those in the control group (n=18), and the treatment effect remained significant after controlling for confounding variables. Positive feedback towards the workshop was also received from participants. The findings showed that our tailor-made online intervention was effective in promoting higher level of self-efficacy in safe and effective social media use among autistic young adults.

14:35-15:00

85518 | *Exploring XR-Integrated Serious Games for Therapy in Female Indonesian Students with Autism: A Systematic Literature Review*

Rangga Alif Faresta, Monash University, Australia

Ilhamda El Zuhri, Monash University, Australia

Combining serious games with extended reality (XR) technology to provide targeted interventions for supporting patients with autism spectrum disorders (ASD) has garnered increased attention from scholars in recent years. However, there remains a lack of comprehensive investigation into how serious games integrated with XR technologies can be utilized to support therapy, particularly for female students in all levels of education with ASD. Therefore, this systematic literature review (SLR) aimed to synthesize research findings on the feasibility, implementation, and effectiveness of serious games combined with XR technologies in supporting female students with ASD within the Indonesian educational landscape. Following the PRISMA framework as the protocol, this study conducted an exhaustive analysis of a diverse dataset sourced from SCOPUS, Web of Science, ScienceDirect, ACM Digital Library, and Google Scholar, specifically focusing on publications from 2015 up to 2024. The results highlight that 455 articles were identified in the Covidence software and included in the first screening step. After the first screening, 49 articles have been finalized that include the eligibility criteria for quality assessment criteria. The study indicates that there is no research setting conducted in Indonesia. Additionally, the utilization of serious games and extended reality are seen as separate interventions for ASD patients. Lastly, the intervention given was not distinguished by gender and only focused on child development in general. Additionally, the paper concludes by proposing several recommendations for further study, urging policymakers and stakeholders to consider and take action toward implementing such interventions in Indonesia.

15:00-15:25

85654 | *Exploring Inclusive Evolution in Music Academia: Experimental Practices in Contemporary Music*

Raushan Jumaniyazova, Kurmangazy Kazakh National Conservatory, Kazakhstan

Zhanel Safiyeva, Kurmangazy Kazakh National Conservatory, Kazakhstan

Narina Ramazanova, Kurmangazy Kazakh National Conservatory, Kazakhstan

For individuals with disabilities, music lessons often serve as effective art therapy, a prevalent approach in Kazakhstan and globally. However, what if a student aspires to pursue music professionally? Are contemporary methods equipped to provide comprehensive music education to everyone, regardless of their physical or cognitive limitations? This paper examines inclusion issues in modern professional music education and practice. It suggests that contemporary music offers a pathway for the full participation and development of musicians with various disabilities, including conditions affecting strength, energy, or alertness, such as ADHD and multiple disabilities. Inclusive music teaching methodologies extend beyond technical accommodations in classrooms; they also involve the psycho-emotional literacy of educators and the use of adapted systems like Figurenotes, improvisation techniques, and specialized devices. This study analyzes available technologies, including music applications, that enhance contemporary music education and practice. The collaboration between contemporary music and inclusive practices holds potential for fostering new musical thinking, advancing professional music education, and benefiting society. The authors translate academic discourse into practical application, showcasing results from a collaboration between disabled musicians and a contemporary music ensemble at the Edinburgh Festival 2023. Through this practical experience, the paper aims to develop experimental musical practices and inclusive perspectives in education, science, and performance, highlighting the transformative power of inclusive evolution in contemporary music.

14:10-15:25 | Room 608 (6F)

# Tuesday Onsite Parallel Session 1

## Special Topics in Educational Management

### Session Chair: Luke Butcher

14:10-14:35

86976 | *Trends and Transformations: A Decade of Bar Exam Performance Among Legal Education Institutions in the Philippines (2012-2023)*  
John Roben Ambas, Legal Education Board, Philippines

This paper examines the evolution of bar exam performance across Legal Education Institutions (LEIs) in the Philippines, from 2012 to 2023. It aims to identify and analyze trends in bar exam results, point out its implications, and understand the broader impacts of reforms within the legal education sector. Utilizing a mixed-methods approach, the research integrates quantitative data from official results released by the Supreme Court, with qualitative insights from institutional reports and literatures. Key findings reveal that bar exam performance exhibited significant fluctuations over the decade, with periods of notable improvement linked to reforms in curriculum and examination processes. Additionally, the results point to first-time test takers having better passing rates than repeaters. Conversely, this indicates that individuals who retake the bar are more likely to fail. There is also regional disparity in passing rates, with NCR LEIs performing better than others. As to the institution type, private LEIs outperform state LEIs. This research provides insights for policymakers, educators, and legal institutions by highlighting the key factors driving performance trends. Recommendations include close monitoring of LEI performance and imposition of sanctions to consistently low-performing schools, a review on the responsiveness of the law curriculum, and enhancement of refresher courses. A caveat, however, is that this study does not assess how well the bar exam questions relate to the skills needed to practice law. Perhaps, a better question to pose for future research would be whether the bar exam is the most effective means of determining the competencies required of lawyers.

14:35-15:00

85760 | *The Exploration of the Reform of Teaching Excellence Framework in UK from the Perspective of the Fourth Generation Evaluation Theory*  
Xueyi Shi, Shanghai Jiaotong University, China

From the perspective of the fourth generation evaluation theory, the main reason for the reform of the new round of Teaching Excellence Framework (TEF2023) in UK is removing the scientific evaluation elements that constrain the fulfilment of the goal of promoting the diversified teaching excellence in the field of higher education. In this regard, TEF2023 improves the rating requirements for each level of the hierarchical evaluation system and effectively combines sub-dimensions and comprehensive evaluation, integrates thirteen "features of excellence" into the evaluation standard and organically combines the qualitative and quantitative evaluation method, optimizes the expert selection and task allocation rules and embeds the appeal mechanism in the decision-making process. These reforms demonstrate UK's deeper exploration of maintaining the ecological diversity of universities and realizing the high-quality development of higher education. The overall goal of China's educational evaluation reform in the new era is similar to that of the UK. UK's reform measures and its experience have revealed that China can accelerate the realization of high-quality and connotative development of higher education by starting from optimizing value concepts, indicator contents and process arrangements of the university teaching evaluation.

15:00-15:25

85124 | *Actually Improving Accessible Learning: Unit Coordinator's Motivation and Perceptions of Enablers and Inhibitors*  
Luke Butcher, Curtin University, Australia

Accessibility represents the design of products, devices, services, or environments so to be optimally usable by all people. Students with motor, visual, auditory, cognitive, or cultural challenges face significant obstacles in the accessibility of their education experiences. By failing to include accessibility into educational curriculum, cycles of ignorance, exclusion, and marginalization are perpetuated. Crucial to improving accessibility of education is the curricula and learning environment. In HE, this is the domain of the unit/course coordinator, and it remains ignored. This is occurring as new challenges for accessible education emerge, including new technologies, blended /virtual learning, and smothering unit coordinator workloads and fatigue. Relevant scholarship has just begun to examine accessibility for higher education (HE) learning, including encouraging diversity, fostering key graduate attributes, and the misaligned incentives that prevent it. However, little is known about the role unit/course coordinators play in accessible learning. Evidently, 20 comprehensive interviews with unit/course coordinators are undertaken, examining motivation and the enablers and inhibitors that impact improving the accessibility of learning. Insights are localized to the key stakeholders within the institution that impact accessible learning, including staff, students, schools, faculties, and the broader institution. Results from unit/course coordinators indicate the importance of peers and one's values, influential stakeholders, confusion around roles and responsibilities, technology anxiety, and inadequate expertise. Significant implications are offered for educators and leadership seeking to motivate staff to improve accessible / universal design for learning, whilst providing concrete directions of actions / cultures of HE practices that maximize leverage points in HE systems.



**15:40-16:55 | Room 603 (6F)**

## **Tuesday Onsite Parallel Session 2**

**Culture & Sociology**

**Session Chair: Atsuko Ibata**

**15:40-16:05**

84670 | *Sociological Factors Shaping Education: A Canadian Perspective*  
Xiaobin Li, Brock University, Canada

The purpose of this study is to illuminate the sociological factors that have shaped and are shaping the Canadian education system, including its history, social stratification, diverse cultural influences, and the relationships between education and individuals and social groups. With four sections, the first section provides a brief history of the education system in Canada. The second section describes the structure and governance of Canadian education. The third section explores social factors that have shaped and are shaping the education system. The fourth section offers a conclusion, presents some discussion on the social factors explored, and provides a few recommendations on the advisable direction for the system to move forward. The methodology for this study is document analysis, both printed and electronic. Document analysis encompasses a systematic procedure for reviewing information to elicit meaning, gain understanding, and develop empirical knowledge. The author has reviewed Canadian textbooks of sociology of education, Statistics Canada's publications on the changing Canadian society, particularly its linguistic, racial, ethnic and religious groups, government of Canada documents, and relevant peer reviewed academic journal articles. Conducting a sociological analysis may help us understand the current educational situation and help us foresee how the education system is likely to change. It is concluded that Canadian educators are making efforts to let the system be more equitable, more aware of diverse students, more inclusive, and less restricted by the colonial history of the country, although with the current circumstances the Canadian education system is likely to resist changes.

**16:05-16:30**

84744 | *Culturally Responsive Multimethods – A Lalaga (Woven) Approach*  
Yvonne Ualesi, Auckland University of Technology, New Zealand

Addressing complex educational challenges calls for creative and novel methodological approaches. In this presentation I discuss the methods taken and implications of developing a culturally responsive multimethod approach that considered indigenous and Western qualitative approaches. I include insights on navigating multiple worldviews of a wider diverse research project team and discuss the challenges faced in research design with indigenous communities in a Western institution. The presentation will show the importance of the researcher enacting reflexive praxis engaged in lalaga or weaving multiple methods. Results presented include data from one of three studies highlighting key findings from multiple stakeholders and participants in the project design. Implications for practitioners in tertiary institutions targeting indigenous learners and their communities for transformative educational outcomes are discussed especially for policy makers and practitioners working with a high proportion of indigenous youth/learners, their families and communities. This presentation challenges the dominant deficit discourse of indigenous youth/learners as problems to be fixed.

**16:30-16:55**

88695 | *Planetary Tourism as the Solution for Sustainable Indigenous Culture Preservation and Mainstreaming It for the Future Education*  
Atsuko Ibata, Nagasaki International University, Japan

Global tourism trends show the shift into FIT, foreign independent tourists, from mass packaged tours often offered in resorts or popular spots established by big foreign capital. FIT seeks more educational experiences learning native culture through local communication in food, lifestyle, and knowledge. Correspondingly, the awareness of indigenous cultural preservation is on the rise, particularly among so-called developed countries where the FIT originates, and hardly finds a trace of indigeneity, like Japan. The destinations of the FIT, however, are on the verge of losing it, yet several tribal cultural villages are there possibly termed as Indigenous Tourism, showcasing the living tradition and conveying its uniqueness and richness through entertainment. This employs local youth for livelihood and transfers vernacular knowledge and practice, in turn, it educates FIT or domestic tourists as the first contact, which can be a great chance for an ecological literacy. It is successful in Malaysia's Borneo, Sabah, an inspiration to tribal communities of Zomia in Northeastern India, particularly in Arunachal Pradesh, which shares distinct commonalities, comparatively preserving the tradition intact, and still at the starting point of losing. This international collaborative linkage has huge potential to upgrade the modality of tourism into a fair operation beneficial not only to native humans but also to flora and fauna on this planet through learning and experiencing indigenous philosophy and wisdom in tune with nature and the ecological cycle, which is contrasting to the way conventional mass tourism, destructive to the local ecology and trading system, and anthropocentric.

15:40-16:55 | Room 604 (6F)

## Tuesday Onsite Parallel Session 2

### Problem-based Learning

#### Session Chair: Priyaporn Ratsame

15:40-16:05

85573 | *Problem-based Learning Integrated with Augmented Reality: Development and Teacher Perspective*

Risma Nurul Auliya, King Mongkut's Institute of Technology Ladkrabang, Thailand

Jirarat Sitthiworachart, King Mongkut's Institute of Technology Ladkrabang, Thailand

Thanin Ratanaolarn, King Mongkut's Institute of Technology Ladkrabang, Thailand

The study aimed to develop a Problem-Based Learning (PBL) model integrated with augmented reality (AR) and to analyze teachers' perceptions of using the AR application for teaching mathematics. This research followed a Research and Development (R&D) design to develop and validate the PBL model using an AR application. The model was evaluated by five experts and tested by fifty secondary school teachers. Data was collected using a 5-point Likert scale for expert evaluation and teacher perception scales. According to the expert review, the model, learning content, and AR application were implementable, with a mean score of 4.28 (SD = 0.55). Experts noted that the PBL-based lesson plan provided a comprehensive overview of the learning process and clearly outlined the steps for using the model. It was well-organized, easy to follow, and facilitated active learning. They also found that the learning content was consistent with the learning objectives, and the PBL activities were clearly explained and relevant to the material. The illustrations in the learning materials were relatable to everyday life. Additionally, based on teacher perceptions, the total mean score was 4.43 (SD = 0.59), indicating that teachers provided positive feedback on using the GLARE application for teaching. Over 90% of the teachers agreed it would create a joyful, fun, and interesting learning environment and help teach geometry topics. However, some teachers were unsure if GLARE would simplify teaching, enhance effectiveness, or promote student self-learning. They were also uncertain about using GLARE regularly in their teaching or recommending it to colleagues.

16:05-16:30

85039 | *Using Problem-based Learning Activities to Enhance Systematic Thinking in Electrical Power Engineering Students*

Priyaporn Ratsame, King Mongkut's University of Technology Thonburi, Thailand

Pakpoom Chansri, King Mongkut's University of Technology Thonburi, Thailand

Chamnan Ratsame, King Mongkut's University of Technology Thonburi, Thailand

This research was prepared to promote the ability to think systematically about drawing ladder diagrams in the Mable Logic Control program. The sample consisted of 18 3rd year vocational certificate students. The data collection method was simple random sampling using lots. The experimental research design used in the experiment was a study of a single experimental group. Measured only after the experiment. The single group, posttest-design. The tools used in the research include: Problem-based learning management activities. Measurement of systematic thinking ability (after class). Steps for creating it: 1. Study teaching and learning problems in the classroom. 2. Study principles, concepts, and theories. 3. Determine the structure and steps. Teaching and learning innovation. 4. Create innovation. 5. Create measurement tools. Ready to find the quality of the tools. 6. Take the innovation to be evaluated by experts to check the quality. 7. Take the modified innovation and use it to teach with real sample groups. The results of the research found that it has a mean value of ( $\bar{x} = 4.69$ , S.D. = 0.48) considered consistent with the assumption that it is at the passing level. (Learners passed the criteria of 80 percent or more of all students). The results of the 1st and 2nd systematic thinking ability tests were overall at a better level (with a score of 7 and above). The number of 16 people is 88.88 percent and the number of 15 people is 83.33 percent, which is according to the assumptions made.

16:30-16:55

87423 | *Problem-Based Learning and Social Justice Education*

Wing Sze Leung, National University of Singapore, Singapore

How do we arouse students' interest in exploring social justice issues in the classroom when they are more concerned about getting a job? How do we equip students with the ability to understand those issues when they are not used to discussions about social justice? In this paper, I will present data collected from focus-group discussions about the impact of a social justice education course on human trafficking and low-skilled labor migration in South and Southeast Asia. In this course, I employed a problem-based approach in designing the syllabus, by which I mean a pedagogical method in which real-world problems are employed as a means to drive student learning. My presentation comes in two parts. I will first make use of cognitive developmental theory as an analytical framework to show that the structural complexity of the issue caused cognitive dissonance and motivated further inquiry among students. I will then explain how the spectrum of scholarly accounts enabled students to form their own judgment about how to respond.

**15:40-16:55 | Room 605 (6F)**

## **Tuesday Onsite Parallel Session 2**

**Counselling, Guidance & Adjustment in Education**

**Session Chair: Zachary Pietrantoni**

**15:40-16:05**

86926 | *Exploring Parents Perceptions of Comprehensive Sex Education Among Early Childhood Students in Indonesia*

Debri Pristinella, Atma Jaya Catholic University of Indonesia, Indonesia

Gabriela Sukmana, Atma Jaya Catholic University of Indonesia, Indonesia

The importance of sex education for children is one of the main mandates of the United Nations (UN) for its members; the UN mandates the governments of the member countries to provide sex education for students. Despite the mandate, sex education has not been implemented comprehensively in Indonesia and is seen as a controversial issue. Implementing comprehensive sexual is considered one of the valuable efforts to prevent the increase of sexual violence against children as well as prepare children with the knowledge and skills to achieve prosperity, health, and self-dignity. In implementing comprehensive sexual education, parents' perceptions are considered significant. This research aims to determine parents' perceptions regarding comprehensive sexual education for early childhood students. This research is qualitative research with a descriptive phenomenological approach. Participants were three pairs of parents with early-age children (aged two to seven years) who have been married for at least seven years. The data collection method uses purposeful and convenient sampling and semi-structured interview techniques. Data was analyzed using the thematic analysis method. The research results showed that participants had positive perceptions regarding comprehensive sexual education and considered it important to implement among early childhood students both at home and school. Participants' perceptions were influenced by several factors, such as their experiences, components of comprehensive sexual education, and the environment around them including children's school environment. In addition, the participants' backgrounds, as well as their occupation and marriage age, also influence their perceptions regarding comprehensive sexual education curricula for early childhood students.

**16:05-16:30**

88309 | *Mentally Healthy Teenagers: The Role of Hope Perseverance in Achieving Flourishing Reviewed from the Spiritual Fortitude of Adolescents Bullying Victims*

Krishervina Lidiawati, Pelita Harapan University, Indonesia

Teguh Lesmana, Pelita Harapan University, Indonesia

Rijanto Purbojo, Pelita Harapan University, Indonesia

Sandra Yu Rueger, Wheathon College, United States

Bullying cases have occurred several times in Indonesia, and the negative impact of bullying behavior on victims is psychological problems that may be experienced, such as impaired mental health of the victims. One way to help victims of bullying maintain their mental health is through hope and perseverance, which can help victims of bullying have the confidence to persist in facing difficulties. With hope and perseverance, victims of bullying are expected to achieve optimization of their potential, which is reflected through flourishing. In the process towards flourishing, spiritual fortitude can also be another source that can help hope perseverance influence flourishing. The purpose of this study was to determine the effect of hope perseverance on flourishing mediated by spiritual fortitude on victims of bullying. This study is a quantitative study involving 675 respondents of adolescent victims of bullying in Indonesia. Hope perseverance was measured using the Persevering Hope Scale, flourishing was measured using the flourishing scale, and spiritual fortitude was measured using the spiritual fortitude scale. Data analysis was carried out using structural equation modeling through the AMOS statistical application program. The results showed that hope and perseverance had a direct and significant effect on flourishing. In addition, the influence of hope perseverance on flourishing is proven to be partially mediated by spiritual fortitude. Thus, it can be concluded that hope, perseverance and spiritual fortitude are things that can be useful for adolescent victims of bullying to achieve flourishing.

**16:30-16:55**

85328 | *Cultivating Psychological Safety: A Cross-Cultural Exploration for Counselor Education Training*

Zachary Pietrantoni, Florida International University, United States

Makoto Miyoshi, Otsuma Women's University, Japan

Jared Lau, Texas Tech University, United States

This presentation examines the utilization of the Discrimination Model (DM; Bernard & Goodyear, 2009) and Interpersonal Process Recall (IPR; Cashwell, 1994) as a training approach to foster psychological safety in counselors-in-training. Both models offer a comprehensive framework for understanding and addressing challenges faced by these trainees. The goal is to explore how counselor educators can use these models to create a psychologically safe learning environment that encourages risk-taking in learning and aiding in navigating sensitive and emotionally charged interactions with clients. A key feature of this presentation is its emphasis on cross-cultural perspectives from the United States of America (USA) and Japan. Drawing upon cross-cultural perspectives, empirical studies, practical insights, and personal experience, this presentation will explore the cultural factors that influence the application and adaptation of the DM and IPR within counselor education programs in the USA and Japan, as well as individual counseling practice and training environments for various levels of trainees. Key themes to be addressed include: (a) the role of cultural values, (b) communication styles, and (c) societal norms in shaping the perception and experience of psychological safety. Additionally, this presentation will examine potential challenges and opportunities associated with cross-cultural implementation of the DM and IPR, offering practical strategies for enhancing cultural responsiveness and inclusivity within counselor education training.



**15:40-16:55 | Room 607 (6F)**

## **Tuesday Onsite Parallel Session 2**

### **Service Learning & Lifelong Learning**

#### **Session Chair: Dawn Zinga**

**15:40-16:05**

85057 | *Hybrid Model of Business Intervention from the Pedagogical Strategy of Service Learning*

Maria Eugenia Navas Rios, Universidad De Cartagena, Colombia  
Emperatriz Londoño Aldana, Universidad De Cartagena, Colombia  
Santiago Ruiz Navas, Ritsumeikan Asia Pacific University, Japan

Over time, many authors have conducted research on Service-Learning (ApS), which has received various designations such as proposal, methodology, experience, or solidarity practice, whether educational, pedagogical, collaborative, experiential, among others. Regardless of its name, the key focus lies in understanding how teaching and learning occur with and from the community, through interventions that facilitate transformations in businesses, entrepreneurship, informal economy, contributing to their formalization process.

The objective of this article is to present an approach to a model that integrates Kolb's experiential pedagogical theory and Lippitt, Watson, and Westley's administrative theory of Organizational Development - hence its designation as a hybrid model - through the systematization and feedback of experiences developed at the University of Cartagena since 2016, using ApS as a pedagogical strategy. This qualitative bibliographic and documentary research utilized academic databases such as Scopus and Google Scholar, with search terms including 'David Kolb learning theory' and 'Lippitt Watson Westley organizational development'. The results highlight similarities between them such as continuous learning cycle, practical application, deep reflection, planned change, and commitment to social responsibility, implicit aspects in ApS. This led to the formation of the Hybrid Model comprising five steps: Real Experience including observation and reflection; Conceptualization; Planning; Action; and finally Evaluation, thus forming a virtuous cycle of practical applicability of both theories in educational and organizational environments.

**16:05-16:30**

85241 | *Embedding Critical Reflection in an Undergraduate Service-Learning Course*

Dawn Zinga, Brock University, Canada

This paper examines the evolution of two service-learning courses providing pre-service teacher candidates and child and youth studies majors with experience working with children and youth. Using an autoethnographic approach, I draw on a decade of teaching the courses, associated reflective journal notes, and design notes. My primary research question asked how various course iterations led to best practices and the role of cognitively informed course design in those practices. The various iterations of the courses included a redesigning for on-line only instruction, Covid-19 modifications, and incorporating important lessons learned from pandemic delivery into the post-pandemic offering. This paper offers an inside look at how cognitively informed course design fosters deeper critical reflection among students. Focusing on core course elements such as design, assignments, interaction, and support within the courses, this paper offers important lessons learned and insights into how to scaffold students in critical reflection and transferable skills that will assist them in their professional work in classrooms and with children and youth. Particular attention will be given to a metacognitive reveal of the courses' underlying structures that have successfully supported students in enhancing their critical reflective skills, becoming aware of their biases, and developing other skills to assist them in helping children and youth reach their full potential. In discussing the evolution of the courses across time, decision points for changes and modifications to the courses will be elaborated upon as will lessons learned and implemented.

**16:30-16:55**

88148 | *Continuing Education and Lifelong Learning: Assessment of United Arab Emirates (UAE) Experience*

Mohamed Elamin Elnasri, Emirates Academy for Identity & Citizenship, United Arab Emirates

Federal Authority of Identity, Citizenship, Customs and ports Security (FAICPS) as one of the most critical federal organizations in UAE government, with more than (10000) employees is vested with the responsibilities of the diversity population security, in small country, hosting foreign labors from 200 countries, with different cultures. In 2009, a survey disclosed that the educational level of 89.8% of (FAICPS) employees was below university degree. In 2010, Emirates Academy for Identity and Citizenship has developed a strategic project to upgrade the educational level of the (FAICPS) employees. The project required designing two accredited university programs for both continuing education and lifelong education. The UAE Federal Government has approved and sponsored the project. The employees started enrollment in the programs in 2014, beside their daily work responsibilities. By 2024, 950 employees were graduated with Bachelor degree and 11 employees have completed master degrees. This paper introduce the project experience and the quality of the educational inputs as well assessing the experience as an innovative project in the Arab countries. The discussion of the assessment in an international educational platform might be vital before extending the experience to the neighboring countries. The paper consists of three chapters covering: (1) The curriculum of Continuing Education; (2) The curriculum of Lifelong Learning; and (3) Academic assessment, including survey among the employees. The results of this study focus the great interest of the employees, particularly those who are above 50 and those who are holding high ranks and senior leadership positions. It was notable that the retired employees also continued in the program to achieve their bachelor degrees. The recommended extending such free educational project to all members of the community.

**15:40-16:55 | Room 608 (6F)**

## **Tuesday Onsite Parallel Session 2**

**Design, Implementation & Assessment of Innovative Technologies in Education**

**Session Chair: Neesa Ameera Mohamed Salim**

**15:40-16:05**

88385 | *A Theoretical Framework for Ubiquitous Learning in Creative Music Arranger: Enhancing Skills Development for Thai Youth*  
Nattaphob Aoonlamai, Khon Kaen University, Thailand  
Parama Kwangmuang, Khon Kaen University, Thailand

The rapid digitalization of music education presents challenges in developing creative music arranger skills among Thai youth. This study investigates the application of ubiquitous learning principles to address this issue, aiming to enhance music education in the Thai context. The research objectives were to: 1) analyze key concepts and components of ubiquitous learning applicable to developing creative music arranger skills, 2) examine the relationship between ubiquitous learning principles and the process of developing these skills, and 3) present a theoretical framework for designing ubiquitous learning innovations for Thai youth. This theoretical study employed a comprehensive literature review and conceptual analysis, focusing on ubiquitous learning, music education, and the Thai cultural context. The research synthesized existing knowledge to develop a new conceptual framework. The study identified five crucial components of ubiquitous learning (permanency, accessibility, immediacy, interactivity, and context-awareness) and their applications in developing creative music arranger skills. It revealed significant relationships between these principles and four key aspects of creative music arranger: sound crafting, musical architecture, rhythmic patterning, and emotional articulation. The research culminated in a novel theoretical framework comprising four main components: adaptive learning environment, collaborative music creation, continuous skill development, and cultural integration. This framework provides a foundation for designing culturally relevant, technologically advanced music education tools. It contributes to the field by integrating ubiquitous learning principles with creative music arranger skills in the Thai context, potentially influencing future research, educational practices, and policy-making in music education and technology-enhanced learning.

**16:05-16:30**

87140 | *Impact of Marine Science Cartoons in Elementary Curriculum on Ocean Literacy: A Taiwan Case Study*  
YaYin Liao, National Taipei University of Education, Taiwan  
Huai-Tzu Hsin, National Taipei University of Education, Taiwan  
ChengChieh Chang, National Taiwan Ocean University, Taiwan  
Liang-Ting Tsai, National Taiwan Ocean University, Taiwan

This study investigates how integrating marine science cartoon animations into elementary school curricula enhances students' ocean literacy. Employing a single-group pretest-posttest quasi-experimental design, the research involved 19 sixth-grade students with weekly experimental instruction sessions over one academic year. The comprehensive marine curriculum included marine science cartoon animations, hands-on activities, environmental education, and marine debris art projects. Research instruments, validated for reliability, comprised scales for marine science motivation and interest, an ocean literacy questionnaire, and a marine knowledge test. The study consisted of a pretest, an instructional intervention primarily using marine science cartoon animations, and a post-test. Results revealed significant improvements in students' marine knowledge and ocean literacy. Moreover, students' motivation and interest in marine science increased substantially. The cartoon animation-based instruction received high acceptance and satisfaction from students. These findings suggest incorporating marine science cartoon animations effectively enhances elementary students' ocean literacy and conceptual understanding. It is recommended that educational institutions adopt such engaging materials in marine environmental education while providing appropriate teacher training and resources. This approach offers a promising strategy for improving ocean literacy in elementary education, contributing valuable insights to marine science education.

**16:30-16:55**

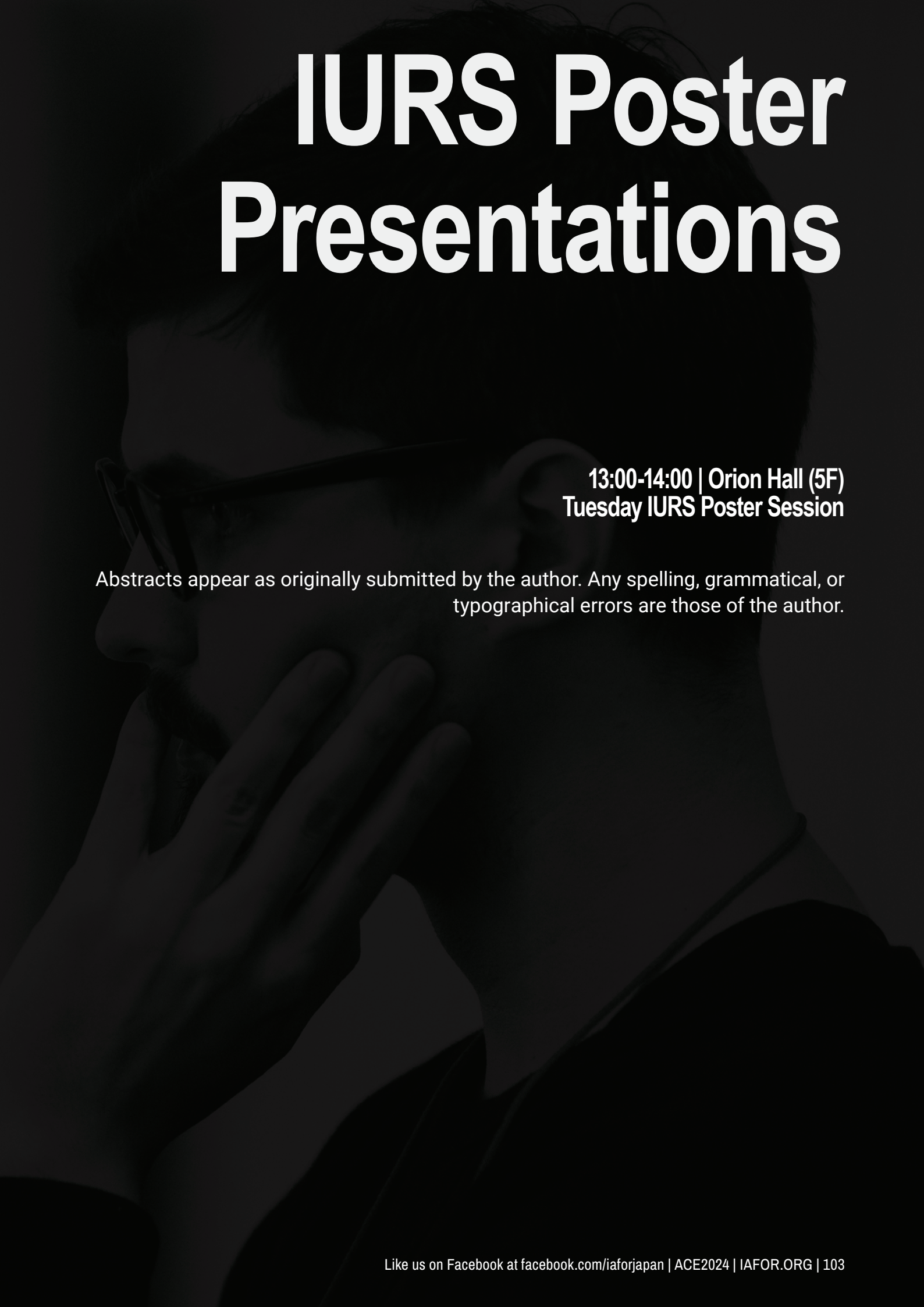
88348 | *A Design Framework for Illustrating Malay Proverbs: Shaping Learning Modalities for Generation Alpha*  
Neesa Ameera Mohamed Salim, Universiti Teknologi MARA, Malaysia  
Mohd Nor Shahizan Ali, National University of Malaysia, Malaysia  
Nurul 'Ayn Ahmad Sayuti, Universiti Teknologi MARA, Malaysia  
Azhar Abd Jamil, Universiti Teknologi MARA, Malaysia  
Syahrini Shawalludin, Universiti Teknologi MARA, Malaysia  
Loh Yoke Ling, Universiti Pendidikan Sultan Idris, Malaysia

Proverbs have played a crucial role in shaping civilizations and humanity throughout history. As intangible elements of national art and cultural heritage, Malay proverbs convey the wisdom of previous generations, defining and preserving the essence of a particular culture. This study introduces a design framework based on the ARCS (Attention, Relevance, Confidence, Satisfaction) model, aimed at illustrating Malay proverbs to enhance learning among Generation Alpha. The study explores how design, specifically children's illustration styles, plays a significant role in integrating educational psychology and child-centered design to convey these culturally rich proverbs. By combining design and motivational principles, the study develops illustrations that not only capture attention but also facilitate deeper comprehension and retention. Findings from the study reveal that Generation Alpha shows a strong preference for "Cartoon Style" illustrations, which are both appealing and engaging for young learners. By aligning design principles and visual strategies with the preferred learning modalities of Generation Alpha, the study contributes to the field of art and design, as well as education supporting the integration of traditional cultural content into modern learning platforms.

## Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.





# IURS Poster Presentations

**13:00-14:00 | Orion Hall (5F)  
Tuesday IURS Poster Session**

Abstracts appear as originally submitted by the author. Any spelling, grammatical, or typographical errors are those of the author.

# 13:00-14:00 | Orion Hall (5F)

## Tuesday IURS Poster Session

40024 | *Strategic Intermediaries: The Role of 'Kuashang' in Shaping Corporate Governance and Transnational Relations Between China and the United States*

Yaqi Li, Jinan University, China

This research examines the roles and agency of 'Kuashang' (跨商)—transnational Chinese business elites from Taiwan and Hong Kong with strong U.S. ties—in shaping corporate governance in Modern China. Using a qualitative case study approach, the study combines elite interviews, archival research, and analysis of policy documents and corporate records to investigate how these elites have been integrated into China's United Front strategy while also exercising their own agency. By leveraging their political and economic capital, 'Kuashang' serve as intermediaries between China and the U.S.-led Western world, playing a pivotal role in corporate governance reforms and facilitating China's integration into the global economy. This research contributes new insights by highlighting the dual dynamic of state absorption and elite agency. It reveals how 'Kuashang' operate as both agents of state influence and autonomous actors, uniquely positioned to influence China's corporate governance and international economic interactions. By focusing on these transnational elites, the study expands understanding of the external forces shaping China's reform process, offering a fresh perspective on the interplay between corporate governance and Sino-U.S. relations.

40025 | *Hoorney Toons: Childhood-to-Adolescent Consumption of Cartoons and the Cultivation of Fictional Character Attraction*

Jann Earl Madariaga, De La Salle - College of Saint Benilde, Philippines

Renee Isabella Aguila, De La Salle - College of Saint Benilde, Philippines

Sophia Florence Calasag, De La Salle - College of Saint Benilde, Philippines

Jonah Alma Deligencia, De La Salle - College of Saint Benilde, Philippines

Christine Samantha Dum Dumaya, De La Salle - College of Saint Benilde, Philippines

Children's curiosity, coupled with technological advancements, has significantly increased media consumption, fostering a strong affinity for animated content. This surge has led to a notable rise in cartoon pornography consumption among young adults in the Philippines. This study explores how long-term attachment to cartoons nurtures sexual attraction to animated characters, influencing adult use of virtual pornography. Utilizing Social Cognitive and Uses and Gratification theories, we conducted thorough semi-structured interviews with fictophilic people (FP) to understand their media habits and attractions. Our findings reveal that the primary motivations for fictophilic attraction, which trigger personal cartoon sexualization, include fulfilled sexual satisfaction and delight, with an element of reality detachment. The degree of fictophilic behavior exhibited is strongly connected with parasociality, contingent upon how much individuals integrate characters into their reality. Heavy consumption of cartoon media during developmental stages serves as dominant sociosexual modeling, imprinting sexual messages onto fictional bodies. This perpetuates fictophilic reinforcement and gratification, directly influencing sexual attraction to cartoons. The study underscores the pivotal role of the temporal length of cartoon media cultivation and its impact on parasocial involvement intensity, shaping the depth of fictophilic self-integration.

40026 | *Innocuous Heterosexual Other Half: Masculinity East Asian Female Fans Demand in K-Pop Boy Groups*

Xiaoyi Yi, Waseda University, Japan

This thesis examines the expression of masculinity in the K-pop music industry to discover a difference between the subject and traditional masculinity of East Asian men and concludes a potential desire of the oriented fandom. The thesis predominantly combines the usage of the theory of masculinities by R.W. Connell and the theory of wen-wu masculinity based in an East Asian context by Kam Louie for its discussion. To analyze the recent instance of performance on masculinity in K-pop, a semiotic analysis of a recently debuted male group ENHYPEN is conducted as the primary resource in this thesis. In addition, theories led by Henry Jenkins' participatory culture theory will serve as the main argumentation to study the fandom ecology and locate the reason why East Asian women become fans of K-pop boy groups through a power structure analysis based on Foucault's Panopticism and Baudrillard's proposals in The Consumer Society, along with an original model of Schema L. This thesis explores the possibility of rectifying the concussion of reckoning K-pop masculinity as the Other to hegemonic masculinity in the South Korean context, the predicament of young East Asian women in terms of emotional demands, and how projecting affection on K-pop male groups serves to construct a fixed consumer-product power relationship.

40031 | *Acceptance of Senior Undergraduate Health Professions Students on the Use of AI Technology in the Healthcare System*

Kaela Marie Althea Saulog Umali, De La Salle Medical and Health Sciences Institute, Philippines

Aliya Nicole Torejas Besa, De La Salle Medical and Health Sciences Institute, Philippines

Miguel Donato So Seng Montagot, De La Salle Medical and Health Sciences Institute, Philippines

Samantha Kei Lalic Ombrog, De La Salle Medical and Health Sciences Institute, Philippines

Reuben Luis Mamburao Itable, De La Salle Medical and Health Sciences Institute, Philippines

The growth of AI or Artificial intelligence has been rapidly evolving in the 21st century. It has been integrated into many industries to aid and improve their services and products, such as healthcare. While the use of AI in healthcare is becoming widespread, it still poses questions about its acceptability in the field. The goal of this study was to determine how health professions students view AI in the healthcare field as future healthcare workers. Additionally, the study sought to find significant differences in acceptance between courses. A cross-sectional descriptive study was conducted with around 206 senior undergraduate health professions students in South Luzon. The study attempted to test the acceptance of students through three variables: general attitudes, perceived capability, and comfortableness. Students were generally undecided about their acceptance of AI in terms of general attitudes. Meanwhile, students found AI slightly unacceptable regarding perceived capability and comfortableness. Significant differences were found in the perceived capabilities of Nursing, Medical Laboratory Science, and Radiologic Technology students. In terms of comfortableness, Nursing and Physical Therapy students expressed differences in acceptance. The students' cautious optimism is due to the known benefits and drawbacks of AI, such as automation and job replacement. Moreover, the lack of AI education plays a part in the students' results. The differences in perceived capability and comfortableness are due to different educational backgrounds and professional outlooks. Future research should explore additional factors influencing AI acceptance, such as gender, age, and experience in AI technology.

# 13:00-14:00 | Orion Hall (5F)

## Tuesday IURS Poster Session

40033 | *Students' Perception of Using English Learning App in Enhancing Their Speaking Skills*  
Nurul Adawiah Ramdanah Arifin, State Islamic Institute of Parepare, Indonesia

Technology has become very important instrument integrated into Educational scope. English learning Apps offered particular opportunities for language learners, providing interactive exercises, real-time feedback and accessed to diverse contents. Limited research has been conducted on how students perceive these tools in the context of improving their speaking abilities. This research aimed to investigate university students' perception and attitudes of the effectiveness of English learning apps in enhancing their speaking skills. This study conducted in quantitative approach using questionnaire survey among 40 university students who regularly used English learning apps. The result findings showed that 96% of the students have a positive perception of these apps which particularly appreciating features such as interactive exercises, real-time feedback, and access to content by native speakers and challenges were also identified which including of difficulties in app for limited interaction and lack of motivation. The study concluded that using English learning apps were beneficial overview from the educators which guiding students in effectively utilizing these tools and optimizing the use of technology in language learning.

40034 | *Impact of Over-Tourism on Students in Major Tourist Cities*  
Casey Akagawa, Musashino University, Japan  
Nutkritta Puanghom, Musashino University, Japan

As the world recovers from the COVID-19 pandemic, tourism has resumed and is rapidly growing. While this brings financial benefits to communities, cities like Tokyo have seen record-high tourist numbers, particularly in February 2024. This surge impacts local residents, particularly university students, who face inflated living costs and societal pressures. This research paper focuses on these students, an often-overlooked demographic, to explore how over-tourism affects their daily lives and mental well-being. The goal is to find common-ground solutions where local governments and universities can collaborate to create a safer, more student-friendly environment. The research will use Google Forms to survey students in over-touristed cities like Bangkok and Tokyo, employing a Likert scale (1 to 5) to measure the extent of the impacts they experience. By analysing these responses, the researchers are certain that this research paper will truly bring upon new and unique findings as it sought to focus on university students which is a demographic that is often overlooked in the broader perspective in order to offer sustainable solutions to the global over-tourism crisis, ensuring that the voices of students—future residents and the city's workforce—are heard and addressed.

40036 | *The Power of One's Linguistic Repertoire*  
Aoi Hirano, J.F.Oberlin University, Japan

According to StudySmarter (2024), "a linguistic repertoire encompasses the variety of languages or dialects that an individual can understand, speak, or use, reflecting one's ability to communicate across diverse linguistic contexts. One's linguistic repertoire is shaped by social, cultural, and educational experiences, mirroring the multifaceted nature of language acquisition and use in a globalized society". It can be very useful and important for young people to fully describe their linguistic repertoire and draw a 'language portrait' in order to fully explain the state and development of their linguistic repertoires. My own experience drawing my 'language portrait' confused me a little at first but helped me to distinguish between my languages. In order to study this more deeply and objectively, I conducted semi-structured interviews. They also helped the interviewees to describe themselves deeply. I interviewed three friends with different backgrounds, one of them is an international student, another one is Japanese who has roots in Italy, and the last person is Japanese and doesn't have experience overseas. As a result, I could find some similarities and differences among the variety of languages and feelings and explore how the idea relates to one's identity. For instance, now my strongest language is Japanese, but I think of myself as German since I lived in the country. And the student who lived in Italy has the similar experience. This research contributes original results and knowledge to this area of study and helps students understand their linguistic background and identity.

40037 | *Using ChatGPT To Enhance Grade 9 Students' Speaking Skills*  
Jirayus Chaimongkol, Kasetsart University, Thailand

Currently, ChatGPT has been perceived to be one of the effective learning tools that have been in the center of the attention in the field of English language teaching. The present study aims to examine the effectiveness of ChatGPT to develop Grade 9 students' English-speaking ability and to investigate their opinions toward using ChatGPT for English speaking improvement. In this quasi-experimental study, thirty-four Grade 9 students were the participants of the study through purposive sampling. The instruments were speaking tests, a questionnaire, and lesson plans. The speaking tests were used to examine their conversational speaking skills about their hobbies in four aspects: pronunciation, fluency, vocabulary and grammar. The questionnaire was for collecting the data about students' opinions of using ChatGPT. The lesson plans were developed based on the teaching-speaking cycle (Burns, 2019), which lasted for seven 50-minute periods. The scores from the speaking tests and the responses elicited through the questionnaire were analyzed through paired-sample t-test and descriptive statistics, respectively. The findings of the study found that there was a significant improvement in their conversational speaking skills. The questionnaire reported their favorable opinions toward ChatGPT in terms of its facilities and useful feedback. The results contribute to an understanding of the potential use of ChatGPT in teaching English speaking. Practical suggestions and implications of ChatGPT in English speaking classes are also discussed.



# 13:00-14:00 | Orion Hall (5F)

## Tuesday IURS Poster Session

40038 | *Amefuru – Rainfall Sensor Useful for Daily Life*  
Fuka Hagiwara, Musashino University, Japan

In this presentation, I will introduce the results related to an application called “Amefuru Alarm,” which adjusts the alarm time based on the weather. This app accurately predicts the weather in real time. I typically commute to school by bicycle, but on rainy days, I use the bus, so I need to wake up earlier on such days. Although I check the weather for the next day before going to bed, the weather may change in the morning, leading to situations where waking up early was unnecessary because the rain stopped, or unexpected rain caused me to be late. This is the reason why I decided to develop this app. The app is designed to be used on iPhones and iPads and is programmed using the Swift language in Playgrounds. The steps for creating the app are as follows: 1. Obtain real-time weather data from the Japan Meteorological Agency for the specified region. 2. Set the alarm time. 3. Check if it will rain and set a rain level based on the precipitation amount. 4. Adjust the alarm time based on the rain level. 5. Trigger the alarm when the set time is reached. In this project, I was able to complete the task of “analyzing data from the Japan Meteorological Agency and obtaining data such as the probability of precipitation in a specified region by entering a location name and area name.” In this presentation, I will discuss this content.

40039 | *Analysis of US-Japan Economic Indicators*  
China Nakamura, Musashino University, Japan  
Natsuki Enomoto, Musashino University, Japan  
Kurumi Endo, Musashino University, Japan

We were interested in the reasons for the continued depreciation of the yen in the US-Japan exchange rate after the Corona disaster, contrary to experts' expectations, and the recent sharp appreciation of the yen. In general, there is a certain interrelationship between exchange rates, interest rates and inflation rates in normal times, but this relationship may be lost in the case of special events. Therefore, we have visualized these three economic indicators for Japan and the US since 2000 on time-series graphs, extracted cases of abnormalities in the graph fluctuations and examined their relationship with the world situation at that time. The originality of the study lies in the comparison with the world situation, focusing on these three points. As a result, events associated with rapid changes in the inflation rate were the Lehman Shock in 2008, quantitative monetary easing by Abenomics in 2013, and the impact of fiscal spending in the Corona Vortex and higher oil prices from 2021 onwards. Correspondingly, prices rose and the yen weakened in 2008, prices remained the same but the yen strengthened in 2013, and prices rose and the yen strengthened from 2022 onwards. Then, in 2008, Japanese interest rates fell sharply, interest rates also fell from 2013 to 2017, and negative interest rates have continued since 2017 (data from BIS statistics). The characteristic trends in the graphs during this anomaly are all different and will continue to be analyzed.

40040 | *Investment Strategies for Archiving SDG11 in Japan: A Portfolio Optimization Approach in Key Infrastructure Industries*  
Riku Nasu, Musashino University, Japan  
Ryuusei Shimoji, Musashino University, Japan  
Ruto Ohashi, Musashino University, Japan  
Kento Ouchi, Musashino University, Japan  
Fuuma Ichikawa, Musashino University, Japan

Japan, being one of the most earthquake-prone countries in the world, faces significant challenges in maintaining sustainable and resilient urban development. In line with the United Nations' Sustainable Development Goal 11 (SDG 11), which aims to make cities inclusive, safe, resilient, and sustainable, this study explores the potential of achieving this goal through strategic investment in key industries. The research focuses on the domestic sectors of electricity, gas, telecommunications, and construction, which are critical for urban resilience and infrastructure. The methodology begins by narrowing down the scope to companies within these sectors, then further refining the selection to 20 companies through fundamental analysis. The analysis evaluates the financial health, market position, and long-term growth potential of these companies, ensuring they are well-positioned to contribute to sustainable urban development. Following the selection, a portfolio optimization approach is employed to determine the optimal investment allocation. This optimization considers not only the potential financial returns but also the companies' contributions to urban resilience and the broader societal benefits. By balancing these factors, the study aims to propose an investment strategy that not only maximizes returns for investors but also significantly contributes to the development of sustainable cities in Japan. The findings are expected to provide actionable insights for both investors and policymakers in aligning financial objectives with the achievement of SDG 11, thereby promoting a sustainable and resilient future for Japan's urban areas.

40041 | *How Marketing Impacts Women by Capitalizing on the Color Pink*  
Tomomi Kubota, Musashino University, Japan  
Adrita Halima Hoque, Musashino University, Japan  
Kriya Ashley Kouyoumijan, Musashino University, Japan  
Myat Mon Ei, Musashino University, Japan

This study investigates the role of the color pink in marketing strategies aimed at women and its contribution to the Pink Tax—where products marketed to women are often priced higher than similar products for men. Using a mixed-methods approach, including a survey and an interview, the findings reveal significant gender differences in perceptions of gendered packaging and awareness of the Pink Tax. We also solved to find the P value to measure if the initial hypothesis was proven correct based on survey results. Our additional interviews highlight how color-based marketing reinforces gender roles and affects purchasing behavior. This study underscores the need for more inclusive marketing strategies and fair pricing practices to challenge traditional gender norms and promote equality.

# 13:00-14:00 | Orion Hall (5F)

## Tuesday IURS Poster Session

40042 | *"A New Intifada" by Hamas*  
Takashi Kawai, University of Tokyo, Japan

Leading members of Hamas have said one of the reasons for the attack on 7 October 2023 was "blasphemy against the holy land," with Palestinian-led groups marching in the streets around the world, a resistance movement known as "Intifada march". Although there are a number of academic papers on the Palestinian Authority or Fatah, little has been done to investigate the issue of the holy land from the standpoint of Hamas. I examine the reason Hamas called for "a nonviolent Intifada" in reaction to the recognition of Jerusalem as the capital of Israel by then U.S. President Donald Trump in 2017. "A nonviolent Intifada" coming from Hamas was seen as paradoxical and impossible to gain traction by researchers on the Middle East since Hamas calls for armed resistance in its charter. Using case study methods, I analyze the official statement by Hamas's executives and previous research on Hamas. Results reveal three important factors. Firstly, Hamas avoided Israeli mass "retaliation" because the infrastructure and financial situation in Gaza was particularly disastrous at the time. Secondly, "a nonviolent Intifada" was more palatable to their allies such as Qatar who would find it easier to support the Palestinian organization. Thirdly, "a nonviolent Intifada" was more likely to enable Hamas to take advantage of its rival, Fatah. These results imply that Hamas is not to be taken merely as "an adamantly violent Islamist group" but also as "a crafty political actor" in the Middle East.

40043 | *Perceived Risks and the Rise of Far-Right Politics: A Qualitative Analysis of Support for the Alternative for Germany (AfD) Through the Lens of Risk Society Theory*  
Bokang Li, Jinan University, China

This research explores the relationship between risk society theory and the rising support for the Alternative for Germany (AfD) party. In the context of modern German society, where globalization, technological advancements, and socio-economic changes have intensified perceptions of risk and uncertainty, this study aims to qualitatively analyze how these factors may influence voter behavior, particularly the growing appeal of far-right politics. The purpose of this study is to investigate the extent to which the AfD might be capitalizing on these heightened risk perceptions to build its support base. Using qualitative research methods, the study involves in-depth interviews with voters, content analysis of AfD's political rhetoric, and examination of media representations. The research seeks to identify themes and narratives that resonate with voters' perceptions of socio-economic risks—such as concerns about immigration, national security, and economic stability—and how these are connected to support for the AfD. The anticipated outcomes of this research will contribute to a deeper understanding of the factors driving support for far-right parties in Germany, offering insights into the complex relationship between perceived risks and political alignment.

40044 | *Patient Response System Using SNS*  
Riko Tanimoto, Musashino University, Japan  
Takeshi Takaishi, Musashino University, Japan

In order to reduce the burden on nurses, I created a system that uses an SNS bot program making work easier for patients to contact them, and for nurses in charge to know the patient's condition on their mobile phones and respond appropriately. For this system, we used LINE, an SNS commonly used in Japan, and its API, and wrote a program in Python. This system receives a nurse call on LINE when a patient needs help, notifies the nurse in charge via LINE, and if the nurse in charge does not respond, the system automatically sends an appropriate reminder message. I think the unique point is that they were able to take appropriate action using the SNS bot program. Patients can use LINE, which is more familiar to them than regular nurse calls, to notify them, so they can contact them without hesitation. Also, since it can be used as a means of communication between nurses, communication errors can be reduced and it will be easier. According to data released by the government, the number of nurses is increasing year by year, but a high percentage of nurses work overtime at night, and nighttime floor patrols and nurse calls are a major burden. By using this system, nurses no longer have to move unnecessarily, reducing their burden and allowing them to respond more accurately to patients. Additionally, it becomes easier to understand the patient's situation.

40045 | *Impact of Psychological Distress and Depression on Academic Performance Among University Students: Mediating Role of Resilience*  
Robina Bibi, National University Of Modern Languages Islamabad Pakistan, Pakistan

The current study examined the relationship between psychological distress, depression and academic achievement among university students. It was hypothesized that the resilience is likely to moderate the relation between psychological distress, depression and academic achievement. The sample consisted to 150 university students from public and private sector institutions. The age range of the sample population was. The measures used were Beck Depression Inventory (Beck et al., 1988), Brief Resilience Scale (Smith, et.al 2008), Kessler's K10 scale (Kessler & Mroczek, 1992) and Academic Performance Scale (Christopher Gregory, et.al 2015). Correlation analysis, T-test and mediation were conducted in order to see the descriptive and inferential analysis. The results showed that the relationship exists among psychological distress, depression, academic achievement and resilience. The analysis showed that the females have higher resilience and academic achievement where as males have higher psychological distress and depression within academic institutions. Moreover, the negative relationship exists between academic performance and depression and positive correlation between resilience and academic. Furthermore, the mediating role of resilience exists in the relationship between academic performance and depression performance. Collectively, these findings have practical implications for educators, mental health professionals, and policymakers to develop targeted interventions that address the unique challenges faced by students.

# 13:00-14:00 | Orion Hall (5F)

## Tuesday IURS Poster Session

40047 | *Urban Spaces and Gender Dynamics: The Case of Pettah's Streets*

Chameli Wijeweera, The University of Moratuwa, Sri Lanka

Janaka Dharmasena, The University of Moratuwa, Sri Lanka

This study adopts a feminist perspective to examine how urban planning inadequately addresses the needs of women in urban public spaces, leading to the creation of gendered spaces. By applying Intersectionality and Gender Performativity Theories, the research analyzes the socioeconomic and physical characteristics of these streets using a mixed-method approach that includes primary data from interviews, questionnaires, photographic surveys, and observational studies, along with secondary data from local government sources and NGOs. The findings reveal that women in Pettah experience significant insecurity and discomfort due to urban planning that fails to address their safety and accessibility needs, undermining their dignity and autonomy. In contrast, men view these spaces as recreational, while women prioritize safety, privacy, and functionality. The study demonstrates how these theoretical frameworks manifest in the spatial dynamics of Pettah's streets and concludes that the gendered and inadequate design exacerbates conflicts between men and women, rooted in competition for space, differing priorities, cultural norms, and reinforced patriarchal power dynamics. Consequently, the study advocates for gender-sensitive urban design approaches to create public spaces that are safe, accessible, and inclusive, accommodating a diverse range of needs.

40049 | *Impact of Sport Rules on Athlete Performance -Empirical Analysis in Alpine Skiing-*

Rikuto Sakaida, Gakushuin University, Japan

In the field of sports competitions, it is well known that rules affect players' performance. In Alpine skiing, an earlier starting order gives an advantage to competitors, because the snow surface condition gradually deteriorates with skiing. Previous studies corroborated this fact. In this study, the influence of the start order on the results was more clearly identified by analyzing the influence of "flip 30", a rule that reverses the starting order. Furthermore, by conducting the analysis separately for temperature and competition type, the study clarified under what conditions the impact of the Flip 30 is stronger. By using the Ordinary Least Squares, it is found that the starting order had a stronger influence on the results under conditions where the snow surface was rougher. In addition, the results of the Regression Discontinuity Design revealed a statistical discontinuity in the results of the second run for both 30th and 31st-place competitors in the first run. In particular, the difference between them was about 12 places on the high temperature/slalom conditions with a statistical significance at the 1% level. Conversely, on the low temperature/slalom conditions, the difference was almost negligible and not statistically significant. Thus, it is clear the the starting order has a very significant effect on the results under conditions where the snow surface is rough. In such a race, for racers whose ability is 30th or worth, getting into the top 30 on the first run gives a substantial benefit because they can get earlier starting orders in the 2nd run.

40051 | *From Fields to Futures: Assessing the Impact of Sustainable Agriculture on the Social and Economic Sustainability of Smallholder Farming Communities in Region 1, Philippines*

Alexia Victoria Yuson Pendor, Enderun Colleges, Philippines

Wesley Dominic Ilagan Colapo, Enderun Colleges, Philippines

Ronan Sierra Santos, Enderun Colleges, Philippines

This study investigates the potential of sustainable agriculture to enhance the social and economic sustainability of smallholder farming communities in Region 1, Philippines. Despite limited development in the agricultural sector due to slow technology adoption and insufficient government support, sustainable practices offer promising solutions. Utilizing a concurrent nested design, this research collected phenomenological survey and interview data from 17 farmers in Pangasinan, Ilocos Norte, and La Union. Thematic analysis and descriptive statistics were employed to analyze the data. Findings reveal that sustainable farming practices can significantly improve operational efficiency, profitability, and product quality. These practices also positively impact the lives of farmers, promoting environmental stewardship and social well-being. While traditional practices and perceived ease of conventional methods present challenges to adoption, increasing government support and educational initiatives are encouraging more farmers to transition to sustainable agriculture. Although the full impact of sustainable agriculture on the Philippines' agricultural sector remains to be seen, the positive outcomes observed at the individual farm level demonstrate its potential to contribute to the sector's overall sustainability and resilience.

40052 | *Instagram Retail Revolution: Understanding the Competing Strategies of Online Thrift Shops in the Digital Marketplace*

Shaun Eldrich Wong Borromeo, Enderun Colleges, Philippines

Dylan Vya Trinidad Collantes, Enderun Colleges, Philippines

Annika Julia Balintongog Sagao, Enderun Colleges, Philippines

Ronan Sierra Santos, Enderun Colleges, Philippines

This study explores the evolving strategies of small online thrift shops on Instagram in the Philippines, focusing on how these businesses navigate the competitive digital marketplace. As the popularity of thrift shopping grows, particularly among environmentally conscious consumers, understanding the tactics that lead to successful customer engagement and business growth is crucial. Our research, utilizing a descriptive research design, examines key factors such as pricing competitiveness, marketing strategies, and customer interaction. Findings reveal that small thrift shops effectively differentiate themselves through strategic use of publication materials, reels, and endorsements, coupled with a strong emphasis on sustainability. These strategies not only enhance customer engagement but also contribute to long-term business stability and growth. This study provides valuable insights for both current and aspiring online thrift shop owners, highlighting the importance of innovative approaches in maintaining a competitive edge in the rapidly changing digital landscape.



# 13:00-14:00 | Orion Hall (5F)

## Tuesday IURS Poster Session

40053 | *Unraveling the Motivations Behind the “Chinese Dream” in Relation to Taiwan*  
Justin Wen, Cambridge Center for International Research, United Kingdom

More than a decade ago, President Xi Jinping famously declared in his “China Dream” speech that “Everyone has an ideal, ambition and dream. We are now all talking about the Chinese Dream.” Even though what the “Chinese Dream” entails is highly ambiguous, it is undeniably a prominent and multifaceted ideological agenda within the People’s Republic of China, driving domestic and foreign policy. One area where the “Chinese Dream” is intrinsically tied to the PRC’s endeavors is the attempt to incorporate Taiwan into its “hemisphere.” Some scholars argue that the Chinese dream is a response to a long tradition of defeat and foreign interference. Some foreign policy experts believe that China’s expansionist ambitions are driven by the pursuit of strength and strategic positioning in relation to the United States. This paper utilizes a qualitative approach, drawing primarily from a comprehensive analysis of secondary sources, including scholarly articles, historical documents, speeches, and policy papers, finding that the fundamental motivation for the Chinese dream is a domestic agenda driven by racial nationalism. Through a claim to ethnic unity, Xi seeks to safeguard the preponderance of the Communist party and prevent potential internal conflicts predicated on disunity of Chinese national heritage. While the pursuit of prominence on the global stage has a role to play, it is not primary. The foundation of Chinese power is in strengthening its own legitimacy, to which the existence of Taiwan may be an incalculable risk.

40054 | *Examining Urban Political Violence and Social Disorder Using Random Forests for Predictive Accuracy*  
Kai Keltner, Vanderbilt University, United States

More than half of the world population now lives in cities, and scholars have consistently found higher rates of political violence in urban areas compared to rural areas. A growing body of research has begun exploring the patterns and dynamics of urban violence using increasingly disaggregated conflict-event data, culminating in several versions of the Urban Social Disorder (USD) dataset. While scholars have tended to estimate statistical regression models to describe causal and predictive relationships, I argue for the value of using alternative, machine learning-based approaches to specifically analyze predictors of future urban social unrest. In this project, I present a use-case proof of concept for a supervised machine learning model utilizing random forests to predict lethal urban violence based on a series of political, population, and economic predictors. When compared against parametric models, I find these ensemble learning models have better predictive accuracy and estimate notably different results for the individual predictive power of each indicator. I conclude with reflections on the model and adaptations for future substantive inquiry.

## Notes

[illegible]



# Wednesday, November 27

## Parallel Sessions

**All times are Japan Standard Time (UTC+9)**

Abstracts appear as originally submitted by the author. Any spelling, grammatical, or typographical errors are those of the author.



09:30-11:10 | Room 601 (6F)

# Wednesday Onsite Parallel Session 1

Foreign Languages Education & Applied Linguistics

Session Chair: Danyang Yue

09:30-09:55

86123 | *How Can We Reduce Student's Language Anxiety: Insights From an Experimental Study*  
Abdullah Alamer, King Faisal University, Saudi Arabia

Language researchers and educators are concerned with reducing students' anxiety. Rigorous studies showed that language achievement precedes anxiety and not the other way around. Accordingly, a new experimental study was conducted where two groups of university students in English courses (experimental N = 66 and controlled N = 77) were followed over one semester at three time points. Students in the experimental group received a teaching method that focused on increasing their vocabulary knowledge. The Short Foreign Language Classroom Anxiety Scale (S-FLCAS) was used, and students' achievement was measured via the English vocabulary knowledge test (VLT). The conditional latent growth curve modeling (LGCM) was used to study the effect of the grouping variable (experiment vs control) on the decline of anxiety. The analysis shows that the effect of the grouping variable was significant, indicating that the experimental group exhibited a significant decline in their anxiety over time relative to the control group. A key strength of the present study is that anxiety was reduced without implementing any anxiety-reduction strategies but through improving students' language-related skills. Findings support the idea that increasing students' language skills can lower their sense of anxiety. Therefore, it is suggested that teachers should (1) Increase students' exposure to the language to an optimally challenging level, (2) allow students to try the language while acknowledging mistakes that are inherent in the learning process, and (3) accept feelings of anxiety at early stages of learning.

09:55-10:20

86960 | *The Impact of the Affective Filter in the Acquisition of English Among College Students in Kuwait*  
Eidah Al-Mutairi, Kuwait University, Kuwait

The study examines the impact of the affective filter on English language learning among college students in Kuwait, focusing on gender differences stemming from past gender-segregated school education. The research is based on secondary research, compiling data from scholarly publications, government reports, and educational statistics. The study found that anxiety and motivation significantly influence English language proficiency. Students with low anxiety perform 25% better than those with high anxiety, and female students show 20% higher motivation than male students. However, mixing male and female students increases male students' anxiety by 15%. The study suggests that Kuwait should change its approach to English language education by implementing mindfulness techniques and virtual instruction systems to reduce class tension. It also recommends gender-sensitive teaching approaches and the use of gender-appropriate materials to boost participation by 35%, depending on gender. The research stresses the complex relationship between cultural backgrounds, past school experiences, and affective variables in language learning. It proposes holistic changes in Kuwait's English language education system and suggests future research on longitudinal research designs and the impact of teachers' gender on students' anxiety and motivation.

10:20-10:45

85502 | *The Moderating Effect of Personality on the Relationship Between Self-regulated Learning and EFL Performance*  
Murong Dong, Universiti Malaya, Malaysia

Despite the widely recognized positive role of self-regulated learning (SRL) in learning English as a foreign language (EFL), its impact on EFL performance is not always consistently significant. Some scholars suggest focusing on individual differences, such as personality types, to better understand the influence of SRL on EFL performance. This study examines the moderating role of personality traits—specifically conscientiousness and neuroticism—on the relationship between SRL and EFL performance. Data were collected from 571 Chinese university students using Likert scale questionnaires to measure personality, SRL, and EFL performance. Correlational analysis revealed significant relationships between personality traits, SRL, and EFL performance. Moderation analysis using SME PLS indicated that conscientiousness positively moderates the relationship between SRL and EFL performance to a medium extent, while neuroticism negatively moderates this relationship to a large extent. These findings offer valuable insights for tailoring educational strategies to individual personality differences to enhance EFL learning outcomes.

10:45-11:10

87271 | *Positive Emotion and English Performance Test Scores Among Chinese EFL Students on a MOOC Platform: A Mediation Model of PERMA*  
Danyang Yue, University of Malaya, Malaysia

Language learning psychology shows that personality and psychological traits impact learners' academic performance. Massive Open Online Courses (MOOCs) have transformed language learning by providing flexible and accessible English learning opportunities. Despite this, concerns about students' holistic development and well-being in online environments persist, especially due to the lack of face-to-face interaction. However, there is limited research on the positive psychology of language learners, particularly on well-being constructs like Positive Emotions, Engagement, Relationships, Meaning, and Accomplishment (PERMA), particularly within language MOOCs. This study explores the predictive role of positive emotions on English performance test scores among Chinese learners of English as a Foreign Language (EFL) on MOOC platform, focusing on the mediating roles of engagement, relationships, and meaning by using the PERMA model of well-being. A descriptive-correlational and causal research design was employed. Data were collected from 350 college-level learners via an online survey, including standardized English test scores and validated questionnaires for PERMA dimensions. Structural Equation Modeling (SEM) was used to test the hypothesized relationships and mediation effects. Results showed significant correlations between all PERMA dimensions and English learning outcomes. Positive emotion significantly predicted English performance, with engagement and positive relationships significantly mediating this relationship. The mediating effect of meaning was not significant. These findings highlight the importance of understanding the positive psychology of language learners in achieving English proficiency. The study offers directions for future research and pedagogical implications for foreign language educators and MOOC providers.

09:30-11:10 | Room 603 (6F)

# Wednesday Onsite Parallel Session 1

## Design, Implementation & Assessment of Innovative Technologies in Education

### Session Chair: Benedicte Irgens

09:30-09:55

84680 | *Exploring the Effects of Automatic Speech Recognition Technology in EFL Students' Speaking Performance*

Hui-wen Liu, National Taipei University of Technology, Taiwan

Pei-Shan Tsai, National Taipei University of Technology, Taiwan

This study examined the impact of Automatic Speech Recognition (ASR) technology, specifically Sensay, on the speaking performance and anxiety levels of 110 non-English major students, including 86 males and 24 females. Using the Foreign Language Classroom Anxiety Scale (FLCAS), students were grouped into "low anxiety," "medium anxiety," and "high anxiety" clusters. The results showed that low anxiety students initially outperformed the other groups. Furthermore, ASR technology significantly improved fluency across all anxiety levels, highlighting its effectiveness in providing repetitive practice opportunities. Notably, high-anxiety students, particularly those with high levels of Test Anxiety (TA), Fear of Negative Evaluation (FNE), and Communication Apprehension (CA), experienced a reduction in their anxiety levels after using ASR technology. These findings suggest that ASR technology can help reduce anxiety, potentially enhancing performance. The study underscores the potential of ASR in EFL education as a tool for educators to reduce students' anxiety and improve their speaking performance. The study concludes with a discussion of pedagogical implications and recommendations for future research.

09:55-10:20

85624 | *Integrating AI in EAP: Enhancing Listening and Speaking Through AI Literacy*

Sarah Warfield, NYU Shanghai, China

This presentation explores the design and implementation of a content-based listening and speaking course at a university-level English for Academic Purposes (EAP) program, structured around Barnard's AI Literacy Pyramid. The course leverages AI tools to enhance student engagement and skill development through five levels of AI inquiry and application: understanding, recognizing, interacting with, applying, and creating AI. Key components include using AI for efficient note-taking, extracting main ideas and details, and improving vocabulary related to rhetorical organization. Furthermore, AI tools facilitate critical reading, analytical thinking, and comprehensive analysis, enabling students to engage more deeply with course content. This talk will provide insights into how these AI-driven methods are employed to support students' academic development and the overall impact on their listening and speaking skills. Attendees will learn about the structured progression through Barnard's AI Literacy Pyramid and see practical examples illustrating the course's application. This presentation aims to offer valuable takeaways for educators seeking to incorporate AI and innovative teaching methods in their pedagogy.

10:20-10:45

84485 | *Using Vlogging to Elicit Authentic Oral Production and Enhance Learners' Speaking Proficiency in an English for Business Course*

Shiao-Wei Chu, National Pingtung University, Taiwan

The majority Taiwanese college students have very few opportunities to practice speaking and writing in English, so they often feel anxious and lack confidence while using written English or communicating orally with foreigners in their daily lives or workplaces. In addition, as English as a Medium of Instruction (EMI) has gained popularity in Taiwanese higher education, expectations for English proficiency among college students have risen. As the result, this practice-oriented research aimed to improve sophomore students' speaking proficiency in the College of Business using video logs (vlogs). Students produced three vlog entries about topics related to course themes. They then created peer feedback vlogs and participated in teacher-student conferences. These authentic oral production tasks align with Bandura's social learning theory and Vygotsky's Sociocultural theory (1978) and the Zone of Proximal Development (ZPD). 35 sophomore students from the College of Business collaborated in groups of 3-4 students throughout the semester. This study employed a mixed-methods approach to collect data. Thus, the quantitative data was analyzed by inferential statistics: a paired sample t-test, while the qualitative data uncovered benefits and challenges of vlog-based learning. Triangulation was used to ensure themes and findings, and a data review team was recruited to maintain interrater reliability. Ultimately, the aim of this practice-oriented study was to bolster EFL sophomore learners' speaking proficiency through repetition, peer feedback, and teacher feedback. The course design described here was aimed at nurturing students' confidence and their real-life speaking skills.

10:45-11:10

85242 | *ChatGPT as a Conversation Partner in Elementary Japanese Language Learning – an Exploration*

Benedicte Irgens, University of Bergen, Norway

With the advent of large language models (LLMs) and easily accessible AI technology such as ChatGPT, foreign language education is faced with new tools with enormous potential for language practice. By simply opening an account and starting a conversation, students can practice their acquired knowledge with a slightly unconventional but tireless partner in the target language and even about the language in a metalanguage they have already mastered. But is it really all that easy? I gave 49 university students in our early-stage elementary Japanese course a homework assignment to attempt a short conversation in Japanese with an AI chatbot on a topic of their own choosing. In addition to a screenshot of their conversation, they were also required to include a text describing the prompts they used for the task and their general impressions. The main questions I aimed to answer through this assignment were: What prompts did students intuitively use to get the chatbot to do what they wanted? What were the main difficulties they encountered when trying to communicate? The exploration gave me a clearer understanding of the importance of predefining roles when engaging with an AI-based chatbot for conversation practice. Furthermore, many students expressed frustration that the chatbot repeatedly failed to yield to their requests for easier, shorter replies with fewer kanji characters. A useful chatbot for foreign language conversation practice should be customized and pre-trained at a suitable language level.

09:30-11:10 | Room 604 (6F)

# Wednesday Onsite Parallel Session 1

## Film & Literature in Teaching Practice

### Session Chair: Adam Zulawnik

09:30-09:55

88698 | *Using Short Films to Develop Cultural Intelligence in the Classroom*  
Marco Aponte-Moreno, University of Southern California, United States

Cultural intelligence (CQ) is the ability to work effectively across different cultures. It involves three key aspects: understanding other cultures, being aware of cultural differences, and adapting behavior to fit different cultural norms. CQ is essential for leaders in cross-cultural environments. This session will explore how short films from various cultures can help students develop CQ. Using Hofstede's cultural dimensions as a foundation, we introduce a three-step, film-based approach to building CQ: watching the film, analyzing it through Hofstede's framework, and reflecting on the cultural differences portrayed. Originally designed for an undergraduate business course, this method can easily be adapted for high schools, graduate programs, and executive education. It's a versatile tool for any discipline where cultural intelligence is important. During the session, we'll demonstrate this approach by showing a short film, followed by a discussion of the cultural traits depicted. This exercise will give participants a firsthand experience of the method, so that they can better understand how it could be implemented in the classroom.

09:55-10:20

88680 | *Teaching Film Appreciation as a Theoretical or Practical Course: A Pedagogical Reassessment*  
Indumathi Soma Shekar, Christ University, India

Film appreciation is an academic course that teaches students the art of reading and analysing films. The study of films as an art involves analysing films through various lenses, including film history, narratives, technical aspects, school of cinema, genres, and film theories. Although the course is founded in theory, it has wider practical pedagogy as the course instructor, screens films in class and facilitates discussion based on the theoretical aspects of films. The larger aim is to critically analyse film either in the written or spoken form to appreciate film as an art. The fundamental objective of the course is to inculcate critical thinking, analytical and written skills among students. It can be argued that film appreciation is a practical course even though it is predominantly viewed as a theoretical course. This conceptual paper challenges the dominant notion of film appreciation course as a theoretical course pedagogy using the basic principles of distinction between a practical and theory course. It applies the theory of experiential learning by David Kolb to support the argument. By emphasising active learning through experience and reflection, this paper re-envision film appreciation course as a practical pedagogy. This can help in reconceptualising and reenergising courses that are often viewed with traditional prism.

10:20-10:45

88372 | *The Necessity and Method of Education Using Martha Nussbaum's 'Literary Imagination' for Improving Sensitivity to Others and Reading Comprehension*  
Seunggyeong Lee, Pusan National University, South Korea

This study begins with the belief that education can solve social issues. Among various society problems, it specifically focuses on a society where hatred is more prevalent than respect, and individualization is increasing. The underlying causes are believed to be a lack of understanding of others and difficulties in self-expression. Based on Martha Nussbaum's philosophy, which posits that literature helps readers empathize with different people and experiences, this study aims to explore and propose solutions using 'literary imagination'. First, it examines how literary imagination has been applied and how literature is used in education to seek the necessity and methods of incorporating literature into teaching. Based on this, it aims to develop educational methods that use literary imagination to improve sensitivity to others, reading comprehension, and lexical ability. This includes proposing strategies for reading literature to understand others' narratives and perspectives, as well as enhancing reading comprehension and vocabulary. In conclusion, literature can provide a means for individuals to engage with and experience the perspectives of others indirectly, thereby improving their ability to understand others' narratives and develop sensitivity to others. By engaging deeply with literary works rather than reading them superficially, individuals can also enhance their reading comprehension and vocabulary. This process may not be quick, but ultimate objective of this study is providing a valuable opportunity for better understanding others and expressing oneself more effectively.

10:45-11:10

83799 | *Translating Kim Ryeoryeong's 'The Trunk' (2024): An Example of a Successful Collaborative Student Project Within Korean Studies*  
Adam Zulawnik, University of Melbourne, Australia

In 2023 I facilitated 'Novel Translations: A Korean-English Literary Odyssey', an innovative group translation project organised by Dr Yon Jae Paik (Australian National University) with funding from the Literature Translation Institute of Korea. The project, which attracted thirteen elite, Korean-speaking university students from across Australia, was carried out across one semester. Students learned about key theories in Translation Studies in the first two weeks, followed by an intensive collaborative translation of South Korean author Kim Ryeoryeong's novel 'The Trunk' (Kr. 'Teuroenkeu', Changbi, 2015). In this presentation, I outline some of the pedagogical challenges and outcomes of the project focusing on 'Students as Partners'. The presentation also serves as a showcase of the published translation (the fruits of the project) with Harper and Collins USA (September 2024) as well as forthcoming Netflix drama based on the book (The Trunk), featuring superstars of the Korean Wave, Gong Yoo (e.g., Goblin and Squid Game) and Seo Hyunjin (e.g., You Are My Spring).



09:30-11:10 | Room 605 (6F)

# Wednesday Onsite Parallel Session 1

Interdisciplinary, Multidisciplinary & Transdisciplinary Education

Session Chair: Anisa Vahed

09:30-09:55

83565 | *Digital Puppetry: Novel Approach to Inspire and Educate Future Generations*  
Keung Hung, The Education University of Hong Kong, Hong Kong

The "Digital Puppetry: The Integration of Art and Technology" project not only revolutionizes puppetry but also holds great potential for inspiring future educational possibilities. By combining traditional Chinese puppetry with advanced technologies, this project introduces a new form of puppet viewing and performance experience that can transform education. The integration of digital technology in puppetry design and performance allows for innovation and experimentation. Artists can explore new techniques, materials, and narratives, pushing the boundaries of traditional puppetry. This fusion of tradition and modernity breathes new life into cultural heritage, making it relevant and captivating for contemporary audiences. In an educational context, this innovative approach can inspire educators to think creatively and engage students in a more immersive and enjoyable learning process. The use of interactive digital art imaging tools and real-time interaction between puppets and computer-generated art images creates a unique visual art performance. This technology empowers performers to create stunning and memorable experiences that captivate audiences of all ages. In education, this can spark curiosity and ignite students' imagination, making learning more engaging and impactful. Furthermore, the integration of digital technology in puppetry design and performance opens up opportunities for cross-disciplinary learning. Students can explore the intersection of art, design, and technology, gaining a deeper understanding of these interconnected fields. The project also emphasizes the preservation and reinterpretation of cultural heritage, providing a rich historical and cultural context for students to explore and appreciate.

09:55-10:20

84034 | *Interrelating Interdisciplinarity and Interculturality: A Meta-Analysis of the Web of Science Data*  
Huiyuan Ye, Shanghai Jian Qiao University, China

UNESCO's 2030 Agenda claimed higher education to be a key driver for its sustainable development goals and pinpointed interdisciplinarity and interculturality as two of the three "interrelated" themes to be focused upon. Is this "interrelatedness" reflected in the ongoing global research? If so, how does the trend look like going through the three development phases of UNESCO's Education for Sustainable Development (ESD) framework, i.e., DESD (2005-2014), GAP (2015-2019), and ESD for 2030 (2020-2030)? Through a meta-analysis of the Web of Science data covering the three time periods, this study showed the trends of interdisciplinarity and interculturality being researched upon separately and together, stratified by two binary variables of "higher education" and "empirical research". The findings showed both similarities and differences of the research trends regarding interdisciplinarity and interculturality as well as a distinctive lack of "interrelatedness" between the two. The trends also showed distinctively different patterns of the three development phases of ESD, especially an intriguing downward curve for the most recent phase. The originality of this study is demonstrated in empirically interrelating interdisciplinarity and interculturality in higher education. Its significance is demonstrated in a recommendation for UNESCO's ESD framework to further leverage research to achieve its aim.

10:20-10:45

83679 | *Navigating Transdisciplinary Collaboration in Higher Education Research Institutions*  
Skilty Labastilla, Ateneo de Manila University, Philippines

In higher education, institutions are increasingly being recognized as pivotal players in addressing the world's most pressing challenges. The foundational role of higher education institutions (HEIs) now extends beyond teaching and research, with a growing emphasis on a third mission — service to society. A paradigm shift is observed as HEIs acknowledge their responsibility to engage with the broader community in addressing global issues. This shift has given rise to transdisciplinary collaboration, an integrative approach that transcends disciplinary boundaries, combining knowledge, methods, and insights from various fields to address "wicked problems" such as climate change and social inequalities (Crow, 2010; Scholz, 2020). This systematic review examines HEI-based research centers' transdisciplinary (TD) collaborations, using a five-stage methodological framework (Arksey & O'Malley, 2005) to map relevant literature. The review initially included 43 studies published from 2000 onwards, identifying two primary HEI strategies for TD engagement: curriculum reforms and research initiatives. Focusing on HEI-based research institutions, the review narrowed to 10 studies that examined TD collaboration from the perspective of university research centers, revealing key elements for successful TD collaboration. Findings highlight that effective TD collaboration necessitates clarifying thematic areas, ensuring institutional support, engaging external stakeholders, and continuous capacity building. Despite these benefits, HEIs must address challenges like leadership and team dynamics, trust and communication issues, institutional barriers, power imbalances, and logistical hurdles.

10:45-11:10

88462 | *Cultivating Intercultural and Transdisciplinary Learning Amongst University Teachers Through an Asia/Africa Global Virtual Exchange*  
Anisa Vahed, Xi'an Jiaotong-Liverpool University, China  
Divinia Jithoo, Durban University of Technology, South Africa

Arguments for preparing university teachers and students to succeed in a competitive global economy and to be good citizens in that environment are supported by the Collaborative Online International Learning (COIL) global virtual exchange (GVE). A hallmark of COIL GVE includes faculty partners' collaborative development of syllabi, which integrates real-world, globally relevant issues and technology prevalent in an interconnected world into the curriculum. The goal is to enable students to acquire competencies sought after by 21st-century employers, such as intercultural communication, collaborative problem-solving, critical thinking abilities, project management, and leadership. As a result, global virtual teams (GVTs) comprising faculty and students from different universities and countries engage in intercultural and transnational learning. The successful implementation of COIL GVE relies on the active involvement, creativity, and collaboration of GVTs to address the curriculum's epistemological, ontological, and praxis elements. This paper describes the collaborative partnerships between a Sino-foreign transdisciplinary University in China, a private university in Japan, and a South African University of Technology, using the technological, pedagogical, and content knowledge (TPACK) and Boschma's proximity dimensions frameworks. Various non- and customised training workshops have helped geographically and culturally diverse teachers experience global and collaborative team-based learning while co-creating their COIL-enhanced modules (n=5). These efforts align significantly with the sustainable development goals (SDGs), particularly SDG 4, which aims to "ensure inclusive and equitable education and promote lifelong learning opportunities for all."

09:30-11:10 | Room 607 (6F)

# Wednesday Onsite Parallel Session 1

## The Teaching of Chemistry

### Session Chair: Baby Eve Asequia

09:30-09:55

84238 | *Exploring Atomic Orbitals: Pioneering Interactive Augmented Reality in Chemistry Education*

Wan Nurhidayah binti A Karim, Universiti Malaya, Malaysia

Ahmad Danial Azzahari, Universiti Malaya, Malaysia

Che Mohd Farhan Bin Che Mat Dusuki, Universiti Malaya, Malaysia

Syazreen Nadia Binti Sulaiman, Universiti Malaya, Malaysia

In recent years, advancements in technology have transformed educational methods, providing new tools for enhancing student engagement and comprehension. This project explores the integration of Augmented Reality (AR) technology into pre-university chemistry education to improve the understanding of atomic structures, particularly focusing on s, p, and d orbitals. Traditional teaching methods often use flat pictures to explain atoms, which can make it hard for students to grasp the 3D shapes of things like s, p, and d orbitals. By utilizing AR, we aim to provide interactive learning experience that enhances visualization, engagement, and comprehension of atomic structures. This project involves the development of scientifically accurate 3D models of atomic orbitals and their integration into an AR application. These models offer students an immersive experience, allowing them to interact with and explore orbital shapes in a virtual three-dimensional space. A key advantage of our AR module is its effectiveness with minimal to zero teacher guidance. Students demonstrated significant improvements in understanding orbital shape, size, and axis labels, with correct responses notably increasing across all categories. This indicates the potential value of AR modules in educational environments with limited teacher resources or high student-to-teacher ratios.

09:55-10:20

88171 | *Detection of Particles with a Fog Chamber: Experiential Learning with IPN High School Students*

Guillermina Ávila Garcia, Instituto Politécnico Nacional, Mexico

This experience is derived from the SLTP (Spanish Language Teacher Programme) conducted at the European Organization for Nuclear Research (CERN), which is offered to science and technology teachers at the pre-university level. The SLTP integrates lectures, visits to the experimental facilities and workshops, particularly in this inquiry with emphasis on the fog chamber construction workshop. The SLTP aims for teachers to return to their educational institutions as ambassadors to transmit and promote the study of particle physics with a scientific approach to their students. This work shows an experimental practice through the construction of a fog chamber in a high school of the National Polytechnic Institute in Mexico, this experience is a simplified version that is proposed in the teacher training courses at CERN. The exploratory qualitative approach methodology was implemented in a study with 40 students who participated in the fog chamber experiment, this study seeks to understand the perceptions and experiences of the students through semi-structured interviews and focus groups, allowing an in-depth exploration of their reactions and learning during the experiment. The data collected are oriented to how the visual results are interpreted and the impact of the exercise on the understanding of scientific concepts. The approach allows for capturing the richness of their experience and reflections, which provide a solid foundation for future research for extension throughout the IPN.

10:20-10:45

85534 | *Enhancing Chemistry Education Through Design Thinking: Development and Evaluation*

Norliyana Binti Md. Aris, Universiti Teknologi Malaysia, Malaysia

Nor Hasniza binti Ibrahim, Universiti Teknologi Malaysia, Malaysia

Noor Dayana binti Abdul Halim, Universiti Teknologi Malaysia, Malaysia

Hussein Hanibah, Universiti Teknologi MARA, Malaysia, Malaysia

Developing innovation competencies and providing learning experiences to understand chemical concepts is the primary goal of the Chemistry Education Curriculum. However, many students need help to apply their understanding to real-world problems. This study aims to support educational policies and guide new ways of thinking through a design thinking approach by developing and testing the Chem\_PRO module for secondary school chemistry. Using a Design and Development research approach involves three phases: need analysis, design and development, and effectiveness evaluation. In the first phase, interviews with three expert chemistry teachers identified the need for a design thinking-based module and innovation competency development. In the second phase, twelve experts from various disciplines such as chemistry/Science, Technology, Engineering, and Mathematics (STEM), curriculum development, module construction, and research and innovation planning collaborated using the Design and Development Research (DDR) approach to develop a Chemistry Module based on Design Thinking. The third phase employed a quasi-experimental method to evaluate effectiveness, showing significant improvements in students' problem-solving, goal-oriented, and thinking system competencies. Students using Chem\_PRO scored higher in post-tests on conceptual understanding than the control group. The study's findings suggest Chem\_PRO as an effective tool for teaching chemistry, providing step-by-step guidance for teachers to enhance innovation competencies and strengthen students' chemistry concepts through design projects.

10:45-11:10

83495 | *Development and Evaluation of a Re-Sequenced Intervention Module (RIM) in Learning Chemical Bonding*

Baby Eve Asequia, Mindanao State University at Naawan, Philippines

Leemarc Alia, Mindanao State University at Naawan, Philippines

Kevin Client Matutes, Mindanao State University at Naawan, Philippines

In the typical high school chemistry curriculum, chemical bonding precedes the chemical reactions. This study has investigated the resequenced effect of learning chemical bonding when chemical reactions are introduced first among Grade 9 learners. A learning module with resequenced intervention in chemical bonding was developed and evaluated by students and teachers. This study assessed the formative scores and differences in proficiency levels between the control and experimental groups. The resequenced module was evaluated as very satisfactory by teachers. Although some respondents voiced negative preconceived notions about the subject, the majority of the evaluations were positive, agreeing with its effectiveness. Moreover, formative scores from the experimental group displayed a slightly higher overall satisfaction percentage (99.06%) compared to the control group (94.74%). Both groups demonstrated significant improvements in competency levels from pre-tests to post-tests; however, the experimental group has significantly higher scores ( $M = 49.3$ ,  $SD = 19.4$ ) compared to the control group ( $M = 41.4$ ,  $SD = 15.3$ ), with a p value of 0.016 and a d value of 0.37. Furthermore, there was no significant association between competency levels and respondents' evaluations of the module, suggesting that baseline competency may be independent of attitudes or behaviours towards the module. Findings suggest that the resequenced learning module was successful in improving student learning outcomes. The module was well-received and led to significant gains in student competency. Hence, the intervention itself has resulted in a valuable tool for enhancing understanding of concepts in chemical bonding.

09:30-11:10 | Room 608 (6F)

# Wednesday Onsite Parallel Session 1

## Higher Education Teaching Practices

### Session Chair: Amitabha Basu

09:30-09:55

85575 | *Developing Digital Storytelling Integrated with Peer Assessment Activities for Library and Information Science Students*  
Thoriq Tri Prabowo, King Mongkut's Institute of Technology Ladkrabang, Thailand  
Jirarat Sitthiworachart, King Mongkut's Institute of Technology Ladkrabang, Thailand  
Kanyarat Sriwisathiyakun, King Mongkut's Institute of Technology Ladkrabang, Thailand

The learning activity incorporating digital storytelling (DS) and peer assessment (PA), which requires writing, collecting information, using technology tools, synthesis skills, and providing feedback for peer works, can contribute to knowledge and skills enhancement. This study develops digital storytelling integrated with peer assessment (DSIPA) activities to promote digital skills among Library and Information Science (LIS) students. Two phases of research were conducted. The first phase is a need assessment analysis. Nine hundred Indonesian LIS students were selected for the survey using simple random sampling. A questionnaire with a 5-point Likert scale was used to uncover student needs in DS and PA. Descriptive statistics was employed to analyze the data, which revealed a high level in all variables, with the mean score ranging from 3.68 (SD=0.9) to 3.76 (SD=0.95). Students showed interest and readiness in DSIPA activities. The second phase is the development of the learning activities. It consists of five main steps: 1) pre-design instruction, 2) design, 3) sharing the story, 4) peer assessment, and 5) reflection. Five experts evaluated it through a quantitative and qualitative survey. Quantitative data were analyzed using descriptive statistics, and qualitative data were analyzed using thematic analysis. Experts confirmed that the DSIPA can enhance LIS student achievement, with the mean score ranging from 4.4 (SD=0.55) to 5.0 (SD=0). The DSIPA's factors contributing to learning enhancement include working with digital technologies, engaging activities, peer interactions, and teacher support. Several improvements for better implementation are needed: adequate training, adequate supporting resources, and monitoring of collaborative work.

09:55-10:20

87794 | *Enhance Process Safety Learning Among Chemical Engineering Students: A Balance Between Perceived Competence, Interest and Motivation*  
Jully Tan, Monash University Malaysia, Malaysia  
Kang Hao Koay, Monash University Malaysia, Malaysia  
Mimi Haryani Hassim, Universiti Teknologi Malaysia, Malaysia  
Kathleen B Aviso, De La Salle University Manila, Philippines

As education continues to evolve, it's imperative that our methodologies adapt to cater to the needs of modern learners. Teaching process safety in chemical engineering undergraduate course is fundamental. However, teaching process safety presents a number of challenges. Relying solely on textbooks or lecture notes falls short, especially considering the scarcity of opportunities for students to engage with actual industrial processes in many universities. The delivery of process safety course in undergraduate engineering education is primarily through the conduct of lectures which does not provide students with enough engagement. This results in low interest, poor retention, and poor understanding of process safety principles. Virtual Reality (VR) presents a remarkable opportunity to transcend these limitations by offering dynamic, interactive learning experiences that immerse students in the world of chemical engineering. The transition from situational interest to personal interest shown in this study confirms that students engage in virtual reality out of genuine interest and are truly self-determined. Three universities were involved in this study, Monash University Malaysia, Universiti Teknologi Malaysia and De La Salle University, Manila. 57 % of the students have better test score after using the VR compared to before using VR. 93 % of the students agree that this VR tool can help them to improve learning in process safety and decision-making skills. The major drawback of this VR tool is that 47 students commented on simulator sickness which can be overcome by giving enough time to acquaint themselves.

10:20-10:45

88280 | *Structural Equation Model of Causal Factors Affecting Achievement in Calculus 1 for Engineering and Architecture Students*  
Anek Putthidech, Rajamangala University of Technology Suvarnabhumi, Thailand  
Amnaj Sukjam, Rajamangala University of Technology Suvarnabhumi, Thailand  
Sangtong Boomying, Rajamangala University of Technology Suvarnabhumi, Thailand  
Suwit Somsupaprunyot, Rajamangala University of Technology Suvarnabhumi, Thailand

The objective of this research was to develop and validate a structural equation model of causal factors influencing achievement in Calculus 1 for students in the Faculty of Engineering and Architecture. The sample consisted of 375 first-year students, obtained through stratified random sampling. Research instruments included questionnaires and an achievement test. Data were analyzed using Structural Equation Modeling (SEM). Results showed that the developed model was consistent with empirical data ( $\chi^2 = 6.45$ ,  $df = 5$ ,  $p = .07$ , RMSEA = .038, CFI = .95, GFI = 1.00, AGFI = 0.99). Factors directly influencing achievement in Calculus 1 were mathematical aptitude ( $\beta = .08$ ), achievement motivation ( $\beta = .22$ ), mathematical background knowledge ( $\beta = .20$ ), attitude towards calculus ( $\beta = .27$ ), and learning behavior ( $\beta = .28$ ). Achievement motivation and attitude towards calculus also had indirect effects on Calculus 1 achievement through learning behavior. This model explained 70% of the variance in Calculus 1 achievement. The findings highlight the importance of developing mathematical aptitude, enhancing motivation, and ensuring adequate mathematical background knowledge to promote achievement in Calculus 1. They also emphasize the role of attitudes and achievement motivation in fostering appropriate learning behaviors. These findings can be applied to improve teaching methods and guide students in engineering and architecture programs to enhance their academic achievement in Calculus 1 courses.

10:45-11:10

84840 | *AI-Driven Customized Study Plans for Students: Experience of a Caribbean Medical School*  
Amitabha Basu, St. Matthews University School of Medicine, Cayman Islands  
Pritam Biswas, St. Matthew's University School of Medicine, Cayman Islands

This study explores the effect of using Artificial Intelligence (AI) to develop personalized study schedules. Utilizing Google's NotebookLM, we generated customized study schedules for students retaking exams. We focused on identifying strengths and weaknesses to optimize study time allocation, aiming to enhance student performance. The current process of developing a customized study schedule requires analyzing large amounts of grade data manually, which takes up a lot of time and is not often accurate in highlighting a student's individual needs. NotebookLM, an AI-powered tool, created personalized study schedules based on students' past exam performances. The process entailed the collection of each student's performance analysis reports. Performance reports were uploaded to NotebookLM for processing in PDF format. We prompted NotebookLM with "List the areas of weakness and strengths based on these performance reports". Subsequently, a second prompt was initiated, which asked to Create a 5-week, 8 am to 5 pm student schedule, providing 60% time for the weak areas and 40% for all other areas for the student. NotebookLM efficiently listed the students' strengths and weaknesses and created personalized hourly study schedules within 10-20 minutes. The AI allocated 60% of study time to areas identified as weak and 40% to other study areas, ensuring a comprehensive and balanced study strategy. The output quality depends on the commands in a textual format. AI generated study plans based on individual performance data could be helpful, speedy, and efficient. Future studies could explore the long-term impacts on student outcomes and scalability in diverse educational settings.



09:30-11:10 | Room 703 (7F)

# Wednesday Onsite Parallel Session 1

Learning Experiences, Student Learning & Learner Diversity

Session Chair: Wuri Prasetyawati

09:30-09:55

88382 | *Does Growth Mindset Change Academic Achievement Gap Between Rich and Poor Students in Societies with Different Levels of Social Mobility?*

Hui Sze Chan, The Chinese University of Hong Kong, Hong Kong

Chi-Yue Chiu, The Chinese University of Hong Kong, Hong Kong

Social mobility in society may moderate the effect of students' growth mindset on the academic gap between high- and low-SES students. When social mobility in a society is high, the presence of a growth mindset can close the SES gap by reducing the adverse SES effect on academic achievement of low-SES students. In contrast, when social mobility in a society is low, the presence of a growth mindset can enlarge the SES gap by benefiting high-SES students. Moreover, the interaction of social mobility, SES, and growth mindset may influence academic performance through two types of possible mediators: attitudes and behaviors. We conducted two studies to investigate these hypothesized relationships. In the first study, data from the PISA 2018 survey of 430,242 students in 59 societies were analyzed using multilevel analyses. A significant 3-way interaction of growth mindset, SES, and social mobility on academic performance was found. For societies with higher social mobility, growth mindset reduced the SES gap in academic performance. For societies with lower social mobility, growth mindset widened the SES gap. In the second study, we collected survey data from 1013 American university students to understand their reasons for effortful academic strivings. Structural Topic Modelling extracted five topical reasons for effortful strivings, and "lack of self-regulation" was found to be a possible variable for mediating the moderation effect of growth mindset on the SES-performance link. The results highlight the interaction effects of societal, family, and personal factors on student's learning motivation and performance.

09:55-10:20

84168 | *Zooming into Success: Virtual Study Groups for Low-Progress Learners*

Shermin Chee, Temasek Junior College, Singapore

This study examines the impact of a Virtual Study Group (VSG) programme implemented during the COVID-19 pandemic to support low progress learner with lower motivation based in a Singapore secondary school. Amid disruptions to traditional learning environments, educators sought alternative methods to facilitate academic engagement and learning continuity using ZOOM as a video-conferencing platform for the study group. The VSG programme spanned an implementation period of one month with a key focus on promoting independent learning in students with curated teacher facilitation. The VSG programme aimed to foster collaborative studying, provide academic support, and cultivate a culture of self-directed learning among students. Through focused group discussions, key themes emerged regarding the VSG's effectiveness, including preferred study group conditions, challenges faced during virtual sessions and the lasting impact of this programme on students' long-term study habits. In my presentation, I will be sharing findings from the focus group discussions regarding the successes, challenges and limitations of the VSG. Furthermore, based on the findings, I will be proposing suggestions for future VSG programmes to optimise its structure for it to be even more effective. With the rising popularity of video-conferencing platforms amongst teens, the proposed VSG model presents a viable future approach for enhancing student study habits and academic outcomes, offering flexibility and accessibility in a rapidly evolving educational landscape.

10:20-10:45

85592 | *Navigating FOMO and Its Relationship on Academic Self-Concept Among Social Media Users*

Wuri Prasetyawati, Universitas Indonesia, Indonesia

Mutiara Camelian, Universitas Indonesia, Indonesia

Social media has various impacts on individuals. For students, LinkedIn, as one of the famous social media platforms, can trigger a fear of missing out due to constant exposure to the career successes achieved by other students. LinkedIn has emerged as a pivotal platform connecting professionals worldwide in professional networking and career advancement. However, alongside its benefits, LinkedIn also brings about a phenomenon known as Fear of Missing Out (FOMO). LinkedIn fosters a culture of comparison, where users measure their achievements against others. This situation can lead to feelings of inadequacy or anxiety if one perceives themselves as falling short in comparison to their peers. This paper explores the intersection of LinkedIn and FOMO, examining its implications on individuals' academic self-concept. This phenomenon especially happens to students from the three best universities in Indonesia. A correlational study conducted on 135 participants showed a negative and significant relationship between FOMO and academic self-concept ( $r(135) = -0.172, p < 0.05$ , one-tail). The results showed that the higher the FOMO, the lower the academic self-concept one has and vice versa. However, the FOMO level was not different among students based on their time on LinkedIn ( $F_{3,131} = 0.55, p = 0.65$ ). Students who spend much time on LinkedIn can have the same FOMO level as students with less access to it. By understanding the triggers of FOMO on social media and adopting strategies for mindful engagement and authentic self-presentation, individuals can navigate the platform more effectively, fostering meaningful connections and advancing their well-being.

10:45-11:10

88487 | *"Walking the Walk": How Ethical Values Shape Students' Authentic Leadership Tendency: Evidence from Indonesia National Internship Program*

Zahrotush Sholikhah, Universitas Negeri Yogyakarta, Indonesia

Gugup Kismono, Universitas Gadjah Mada, Indonesia

Tur Nastiti, Universitas Gadjah Mada, Indonesia

Promoting an authentic leadership tendency among students is crucial for their career preparation, primarily through experiential learning. However, there are limitations regarding the instillation of ethical principles and their impact on students' ability to navigate and sustain an ethical professional trajectory. While experiential learning, such as internship, is recognized for delivering insights into the needs and atmosphere of the professional, empirical studies related to its actual influence on students' career perspectives and their leadership tendencies remain scarce. The objectives of the study are twofold; first to examine the impact of experiential learning on students' professional ethics, career attitude, and career self-esteem. Second, utilizing the idea from Social Cognitive Career Theory (SCCT), this study aims to examine these ethical professional factors on Authentic Leadership Tendency (ALT). Data were collected from 19,080 participants of the "Magang dan Studi Independen Bersertifikat (MSIB)," a national-scale internship program for undergraduate students in Indonesia. The hypotheses were tested using SPSS and Hayes Macro Process Model 59. The results of Study 1 demonstrated an increase in professional ethics, career attitude, and career self-esteem of students after completing the internship program. Furthermore, Study 2 emphasized the role of these factors in enhancing students' tendencies to emerge as authentic leaders. This research enhances students' career preparation, particularly by ensuring the "walking the walk" of ethical principles in their future professional conduct. Additionally, the implementation of internships for experiential learning successfully facilitates the attainment of these objectives.

**09:30-11:10 | Room 704 (7F)**

# **Wednesday Onsite Parallel Session 1**

## **Early Childhood Education**

### **Session Chair: Gladys Escarlos**

**09:30-09:55**

85952 | *Implementation of Traditional Javanese Games for Early Childhood to Preserve the Javanese Language: A Quasi Experimental Research*

Safira Rizky Amanda GP, Gadjah Mada University, Indonesia

Sonia Kurniawati, Gadjah Mada University, Indonesia

The influence of global culture through the internet and social media has reduced the number of Javanese language speakers. However, traditional Javanese teaching methods remain relevant in efforts to preserve the language. This study aims to investigate the implementation of traditional Javanese games such as congklak, gobak sodor, cublak-cublak suweng, and ceken as language learning media for early childhood. In this quasi-experimental study, 64 students from 01 Purwosari Kindergarten were divided into two groups consisting of class A as the experimental group and class B as the control group, each comprising 32 students. Over a period of four weeks, both groups received treatment, with the experimental group using traditional Javanese games and the control group using textbooks. Before analysing the data, the researcher tested the data with a normality test, which showed that both data sets were suitable for testing or normal with Significance > 0.05 (0.124 for the control group and 0.093 for the experimental group). The analysis results showed that the use of traditional Javanese games significantly improved Javanese language proficiency in the experimental group. This was evidenced by the results of the independence T-test Significance > 0.05, which was 0.220. As well as with the mean score of 74.28, compared to the control group which only reached 65.71. These findings affirm that the implementation of traditional Javanese games is effective as a language learning media for early childhood, and supports the preservation of the Javanese language.

**09:55-10:20**

86924 | *Status and Countermeasures of New Teachers' Family-Kindergarten Cooperation: A Case Study of Three Beijing Kindergartens*  
Heng Du, National Chengchi University, Taiwan

Home-school cooperation is a crucial component of kindergarten education. Effective collaboration between families and schools can promote the healthy development of children, enhance teachers' educational experiences, and help parents establish correct educational perspectives. This study analyzes the current status and issues of home-school cooperation abilities among new teachers in Beijing. The aim is to provide a theoretical basis for improving new teachers' effectiveness in home-school cooperation and to address the existing challenges in this area. The research employs a combination of questionnaire surveys and interviews, collecting 185 valid questionnaires and conducting interviews with 6 teachers and 2 parents. The findings indicate that new teachers currently lack professional foundational skills and the ability to interact and cooperate with parents, although they possess good self-improvement abilities. Based on these findings, the study proposes six countermeasures: enhancing new teachers' awareness of home-school cooperation, providing opportunities for home-school collaboration, accumulating experience in home-school cooperation, exploring various approaches and methods for cooperation, emphasizing communication skills in home-school collaboration, and reflecting on the outcomes of home-school cooperation efforts.

**10:20-10:45**

87353 | *Nurturing Early Childhood's Character in Indonesian*

Siti Aisyah, Universitas Terbuka, Indonesia

Nina Mariani, Universitas Islam Negeri Sunan Kalijaga Yogyakarta, Indonesia

The foundation of children's future lies in character and religious education, principles that are heavily emphasised in Indonesia, especially during early childhood development. This research examines how Indonesian Ahmadiyah women foster character and religious education among their children. Using qualitative methods including observation, in-depth interviews, and focus group discussions with mothers from Kuningan and Yogyakarta, this research investigates the community's strategies in nurturing the character and spirituality of their children by involving survey respondents: 254 children and their teachers and 45 in-depth interviews with 45 mothers. The sample selection of respondents was done by purposive sampling. The main theoretical framework used is The Ahmadiyah community, as a Muslim minority faith group, have been compelled to organize in order to safeguard their beliefs and to discover innovative and efficient methods to ensure the well-being of their members and promote the growth and continuity of their community. (Balzani, 2020, p. 24). The findings reveal the important role played by community women in shaping the character of their children, instilling values covering the areas of religion, humanity and citizenship tailored to the child's stage of development, such as honesty, discipline, accountability, modesty, compassion and religious devotion. To overcome challenges in education, these women use a variety of strategies and rely on support from their spouses, families and communities. The community serves as a key support, offering guidance and the necessary resources to facilitate these endeavours. This research provides an overview of religious community-based character education and can provide input for government policy.

**10:45-11:10**

84522 | *Gliding Thru Pandemic: Experiences of Students with Children*

Ma Vivienne Segumpan-Salon, Central Mindanao University, Philippines

Amita Sususco, Central Mindanao University, Philippines

Ehlich Ray Magday, Central Mindanao University, Philippines

Jenyliza Tan, Central Mindanao University, Philippines

Gladys Escarlos, Central Mindanao University, Philippines

The growing number of student-parents in educational institutions possess unique challenges that require understanding and tailored support to ensure their academic success and overall well-being. This qualitative study aims to explore the experiences of undergraduate students who became parents during the COVID-19 pandemic and identify various initiatives to be implemented by educational institutions to support student-parents in balancing their academic responsibilities with the demands of parenting. Following Husserl's Descriptive Phenomenology, data was extracted through face-to-face interviews and Focus Group Discussions with ten purposely selected undergraduate student parents. From the interview, three themes were extracted from the students' experiences. These are 1. academic hurdles, 2. emotional and mental well-being concerns, 3. support and coping strategies. From these themes, the researcher proposed programs and activities that can benefit student parents as they glide in their academic undertakings. These programs are practical support, such as on-campus childcare facilities, flexible course scheduling, financial aid, and academic advising tailored to their needs. Also, activities like community engagement, peer support, and parenting education could foster a supportive and inclusive environment. The study recommends that educational institutions seriously consider student parents' difficulties and take proactive steps to meet their requirements better.

09:30-11:10 | Room 705 (7F)

# Wednesday Onsite Parallel Session 1

## Teacher Professional Development

### Session Chair: Anna Dabrowski

09:30-09:55

87762 | *Emotional Labor of Taiwanese Educators: The Challenges of Parental Complaints and Defamation in the Context of Declining Birth Rates*  
Fu-An Shieh, National Chengchi University, Taiwan  
Chen Pai Chen, Asia University, Taiwan

In the context of declining birth rates, Taiwanese parents have increasingly high expectations and demands of teachers, posing new challenges to teachers' professional ethics and psychological resilience. This qualitative narrative study explores the emotional labor, coping mechanisms, and stress management strategies employed by educators when facing parental complaints and defamation. The research subjects include university professors, high school teachers, junior high school cram instructors, and preschool educators, aiming to understand their psychological adjustment processes and the diversity of coping strategies following professional setbacks. The study reveals that teachers' emotional responses to complaints and defamation incidents typically progress through three stages: initial shock, helplessness, and self-doubt; followed by intense stress, anxiety, and mistrust of the work environment; and eventually, some teachers manage to restore emotional balance through self-adjustment or external support. Based on these findings, the study suggests fostering positive thinking and resilience through training, enhancing communication among teachers to share positive experiences and form supportive communities, and schools proactively providing resources to alleviate stress and help teachers better navigate professional challenges. These insights offer empirical support for education policymakers and practical guidance for administrators and frontline educators on implementing psychological support measures to promote teachers' long-term professional development. Additionally, this research contributes to cross-cultural education studies, deepening the understanding of educational challenges within diverse Asian cultural contexts.

09:55-10:20

84023 | *The Development of Emotion Regulation Skills Among New Teachers and the Key Role of Educational Leaders and Colleagues*  
Izhar Oplatka, Tel Aviv University, Israel  
Amit Harush, Tel Aviv University, Israel

The purpose of this study is to trace the process of developing emotion regulation skills among female teachers in special education in their early career. The study posed two questions: (1) What are the patterns of developing emotion regulation skills in early career in teaching? (2) What are the factors that stimulate and influence the process of developing emotion regulation? Emotion regulation is a person's ability to control his or her feelings and behaviors and is rather a specific form of self-control in which the person is able to function effectively even when required to deal with experiences that arouse strong emotional reactions. Twelve teachers in the early career stage working in special education participated in semi-structured interviews. Their ages range from 30 to 42. Most of the teachers are married with children. The interview transcripts were analyzed in accordance with the guidelines suggested by Marshal and Rosmann (2011). The teachers reported moving from emotion suppression in the first two years in teaching to a display of both positive and negative emotions. The leader organizes meetings in which new teachers are encouraged to talk about their feelings, vent anger, and exchange ideas. They (and colleagues) may model the 'right' form of ER and support new teachers emotionally. Studying the development of emotion regulation skills in teaching increases our understanding of early career in teaching, on one hand, and of the place of emotion regulation in the professional development of new teachers, on the other.

10:20-10:45

88035 | *Psychological Well-being, Work-life Balance, and Coping Strategies of Tertiary Educators in a State University in Manila*  
Jose Abat, Polytechnic University of the Philippines, Philippines

This study aimed to assess the psychological well-being, work-life balance, and coping strategies of tertiary educators in higher education institutions in Manila. A descriptive-correlational research design was employed to examine the levels and relationships among these variables. A stratified sample of 264 respondents was selected from 837 full-time faculty members at a state university. Majority of respondents were female, aged 45-49, married, and permanent regular faculty members. Findings revealed that environmental mastery had the highest mean score (5.98) among the dimensions of psychological well-being, followed by purpose in life (5.77), positive relations (5.48), autonomy (5.40), self-acceptance (5.01), and personal growth (4.86). The overall mean psychological well-being score was 5.42, interpreted as moderately high. On the work-life balance, work interference with personal life had a moderate mean score (2.74), while personal life interference with work was low (2.09). Work/personal life enhancement had a high mean score (4.05). The most preferred coping strategies were problem solving and religiosity, followed by cognitive reappraisal and relaxation. Age was a significant predictor of work-life balance, while sex, educational attainment, age, and academic rank predicted the use of specific coping strategies. These factors likely contribute to the overall maturity and development of academic professionals. In conclusion, the tertiary educators demonstrated a moderately high level of psychological well-being and generally maintained a good balance between their personal and professional lives. They employed various coping strategies, particularly problem-solving, religiosity, cognitive reappraisal, and relaxation, to manage life and occupational challenges.

10:45-11:10

84711 | *Understanding Educator Readiness to Support Student Mental Health*  
Anna Dabrowski, Australian Council for Educational Research and The University of Melbourne, Australia  
Syeda Kashfee Ahmed, Australian Council for Educational Research, Australia

Student mental health is linked to improved learning, and there has been significant international investment in policies, practices, and programs focused on preventing and responding to mental health conditions amongst young people. Accordingly, the number of mental health and wellbeing interventions now being implemented in education settings continues to grow, despite a lack of research on teacher readiness to implement such interventions. This session presents the findings of a recent mixed methods study of educators from schools and universities in Australia, Japan, Pakistan, Samoa, and Indonesia. The research approach included three key activities: (i) a systematic document review and synthesis of literature and policy documents, (ii) a validated "teacher worry" questionnaire that captures overall wellbeing, stress, and reasons for worry amongst educators, and (iii) qualitative interviews with key stakeholders, including educational psychologists, teachers, and preservice education coordinators. Correlation analysis suggests a relationship between individual sources of worry and intention to leave the profession, while thematic analysis offers insights into the experiences of educators, and their need for better support. Overall, the findings suggest that although teachers are already heavily burdened by their workload, they are increasingly subject to elevated expectations of dealing with diverse students' needs and behaviours. The research also indicates that educators' stress and poor mental health reduces their motivation to help students to reach academic goals. The session concludes by highlighting effective practices that may support teachers in the face of a growing student mental health crisis, and encourage them to remain in the profession.



**09:30-11:10 | Room 707 (7F)**

# **Wednesday Onsite Parallel Session 1**

**Educational Policy, Leadership, Management & Administration**

**Session Chair: Susan Vicente Villarente**

**09:30-09:55**

83274 | *Performance Measurements of Community-Friendly Schools in Hong Kong*  
Kwun Hang Lau, CCC Tam Lee Lai Fun Memorial Secondary School, Hong Kong

This research evaluates the performance of community-friendly schools in Hong Kong, a new educational model introduced by CCC Tam Lee Lai Fun Memorial Secondary School since 2016. Community-friendly schools, though few in number, aim to balance resource utilization while fulfilling both educational and social needs. The study adopts a descriptive mixed research method, utilizing questionnaires and interviews as data gathering instruments. The sample consists of 86 students, 19 teachers, and 30 community stakeholders for the questionnaires, while interviews were conducted with a total of 8 participants, including students, teachers, and community stakeholders. The performance of these schools is assessed in terms of their impact on school reputation, students' learning attitudes, academic performance, and community engagement. These aspects are evaluated through three levels of activities - community learning activities, the activities cooperated with community organizations and community services organized by the school. Data analysis includes descriptive statistics, Analyses of Variance, and linear regression models, showcasing the significant effects of these institutions. The study examines changes in students' behavior before and after enrollment, revealing positive correlations between student engagement in community activities and improvements in academic performance, community awareness, and willingness to serve the community. This comprehensive evaluation framework aims to provide insights into the effectiveness of community-friendly schools in achieving educational and social objectives, and their overall reputation within the Hong Kong community.

**09:55-10:20**

83579 | *Exploring Educational Leadership: Leadership Model(s) to Be Practised to Ensure Equitable Quality Education in Underprivileged Primary Schools*  
Gideon Animah, University of Bath, United Kingdom

Educational Leadership in the 21st century is playing an important role in fostering leaders to be capable of dealing with significant economic, social, cultural, and environmental challenges faced by schools. With new models emerging and established approaches being redefined and further developed, education remains the main change agent in developing and developed societies. While recent research by scholars has confirmed that educational leadership makes a significant difference to student outcomes, each form of leadership has its own strengths and weaknesses and is applicable depending on the environment. Their analyses cease to question the type of models needed to be practiced in underprivileged schools. Based on this view, this paper aims to revisit the models of leadership which are pertinent to the context of primary schools, and to discuss the best fit models which can be practiced in an underprivileged environment to ensure equitable quality education. The methodology for this paper reviews existing literature on educational leadership theories and concepts in an African context. This paper concludes that educational leadership entails carrying the responsibility for the proper functioning of a system in an educational institution in which others participate being it resourced or under resourced. Educational leadership model(s) is an important notion and should play a more prominent role in the educational context it operates. In view of these, pragmatic recommendations have been made to describe the way forward for the attention of all stakeholders in education.

**10:20-10:45**

85562 | *Development and Related Research of the Leadership Motivation Scale for Early Childhood Education Professionals*  
Yu Chia Huang, National Chengchi University, Taiwan  
Fu An Shieh, National Chengchi University, Taiwan

The teacher training policy in Taiwan has undergone multiple reforms, aiming to cultivate a teaching workforce with sound character, civic literacy, and lifelong learning abilities. Teachers are encouraged to pursue further education or take on administrative roles to enhance their leadership skills. Due to the arduous process of becoming a leader, possessing leadership motivation is extremely important. Principals with leadership capabilities can significantly influence the overall team atmosphere and performance. Therefore, to understand the leadership motivation of preschool educators in Taiwan, researchers developed the "Leadership Motivation Scale for Preschool Professionals" and explored it through three dimensions: "Entrepreneurial", "Professional", and "Leadership". The research used the Rasch model's Rating Scale Model (RSM) to analyze item difficulty estimation, fit statistics, and step difficulty. Reliability analysis indicated that the Cronbach's alpha coefficients for the subscales were .91, .88, and .90, respectively, all exceeding .70. The overall internal consistency reliability of the scale was .95, demonstrating that the scale has excellent stability and consistency in measuring leadership motivation and its three sub-dimensions among preschool professionals. The difficulty of the items was moderate and infit numerical value indicated it is well-fitted. Additionally, two dimensions of the scale showed a significant positive correlation with the Self-Efficacy Scale. The leadership motivation level was higher among those who were expected to take over family-run preschools compared to those who were not. Therefore, this scale aims to provide a reference for teachers to understand themselves or for future talent selection.

**10:45-11:10**

86185 | *The Role of School Leadership in Inclusive Education: A Policy Framework Towards Academic Success*  
Susan Vicente Villarente, University of Southeastern Philippines, Philippines  
Vania Mercy Durante, University of Southeastern Philippines, Philippines

This study evaluated the challenges school administrators face in implementing inclusive education and described their experiences in managing these programs. Employing a qualitative design with a case study method, the research aimed to co-construct meaning with participants to understand their perspectives as leaders of inclusive schools. Data were collected through structured interviews, then analyzed and presented as collective themes based on participants' responses. The findings highlighted that leadership vision and commitment, collaborative decision-making, and professional growth are critical factors influencing the success of inclusive education initiatives. These elements together serve as core pillars, forming a policy framework for inclusive education programs within educational institutions and impacting their efficacy and sustainability. Leadership vision and commitment ensure that inclusive practices are prioritized and integrated into the school's culture. Collaborative decision-making fosters a shared responsibility among stakeholders, enhancing the implementation process and ensuring that diverse perspectives are considered. Professional growth opportunities enable educators to develop the necessary skills and knowledge to support all students effectively. Despite the challenges encountered, the study describes a policy framework that promotes the essential roles of leadership vision, collaborative decision-making, and professional growth in supporting academic success in inclusive education environments. By focusing on evidence-based strategies, stakeholder engagement, and a commitment to quality, inclusive education can enhance academic achievements for all students. Consequently, further research on the role of school leadership in contextualizing academic success in inclusive education is recommended. Addressing these critical factors will enable educational institutions to develop more effective and sustainable inclusive education practices.

09:30-11:10 | Room 708 (7F)

# Wednesday Onsite Parallel Session 1

## Technical-Vocational Education

### Session Chair: Zanariah Ahmad

09:30-09:55

85432 | *Examining Vocational Education in Indo-Pacific Countries and Implications for Taiwan's Vocational Education*

Jen-Chia Chang, National Taipei University of Technology, Taiwan

Po Ching Lu, National Taipei University of Technology, Taiwan

Vocational education is pivotal in shaping a country's workforce by providing essential skills and training to meet modern economic demands. However, Taiwan's current vocational education system faces multiple challenges, including insufficient government support for vocational training needs, inadequate industry collaboration, and a lack of innovation. These issues need to be addressed to enhance Taiwan's vocational education level and prepare its workforce for future economic challenges. Countries in the Indo-Pacific region, such as Japan, India, Australia, and the United States, have developed robust vocational education systems that have substantially contributed to their economic achievements. This comparative study analyzes the vocational education frameworks of these countries, offering insights for improving Taiwan's vocational education system. By employing a comparative analysis methodology, this study systematically evaluates the vocational education systems of these nations alongside Taiwan's. Historical and policy analyses further assess the development and effectiveness of these systems. Key findings indicate that successful vocational education systems rely on strong government support, effective industry collaboration, continuous innovation, and rigorous quality assurance. Implementing these strategies in Taiwan could significantly improve its vocational education framework, better preparing its workforce for future economic challenges. The study emphasizes the importance of comprehensive legislation, fostering industry partnerships, integrating digital skills, and establishing quality assurance mechanisms. By adopting these measures, Taiwan can enhance its vocational education system to better meet the evolving demands of the global economy and maintain its competitive edge.

09:55-10:20

83633 | *Empowering Next Generation in Aviation: Addressing Cadet Needs in ICAO at Indonesian Vocational Higher Education*

Saptandri Widiyanto, Politeknik Penerbangan Makassar, Indonesia

Maya Masita, Universitas Muhammadiyah Bulukumba, Indonesia

Human resources, one of the eight areas of the International Civil Aviation Organization-Universal Safety Oversight Audit Program (ICAO-USOAP), necessitate Indonesia, as an ICAO member, to develop competent and certified personnel compliant with international regulations. ICAO focus on the importance of professional personnel with various certifications and extensive knowledge in administrative, economic, technical, regulatory, and international relations aspects. This qualitative case study evaluates the needs of students in ICAO within vocational higher education under the Ministry of Transportation. Data were collected through interviews and document analysis from Indonesian Aviation Polytechnics, engaging various aviation sector stakeholders for in-depth insights into student needs. Ethical standards were maintained by obtaining consent from all interviewees, ensuring data confidentiality, and exclusive use for research purposes. Thematic analysis was used to identify patterns in understanding and implementing courses related to regulations and ICAO. Findings revealed that there are no standards of the materials, resulting in significant differences in understanding and implementing courses related to regulations and ICAO. A deep understanding of these courses is crucial for students in their global aviation industry roles. The analysis results informed recommendations for improving the curriculum and teaching materials at Aviation Polytechnics Indonesia, highlighting their vital role in preparing human resources for the government and aviation industry. Thus, guidance, including reference books, is needed to help students understand the roles, functions, and authorities of international organizations in international civil aviation administration, ensuring harmonization.

10:20-10:45

84725 | *Vocational College Students' Perceptions of English Varieties in English Classrooms in China*

Ziyu Huang, Mahasarakham University, Thailand

Eric A. Ambele, Mahasarakham University, Thailand

This study investigated the perceptions of English major students at a vocational college in China regarding varieties of English, including China English. Using purposive-convenience sampling, 35 Chinese students participated in a survey, with 9 of them also engaging in in-depth semi-structured interviews. The survey data were analyzed using descriptive statistics, while the interview responses were examined through qualitative content analysis. The results indicated that although Chinese students tend to acknowledge the legitimacy of World Englishes, including different English varieties and China English, particularly concerning different accents and the use of China English alongside inner circle Englishes in media and both intranational and international communication, they still show a preference for American and British English in speaking, writing, teaching, and classroom use, including pronunciation, vocabulary, grammar, examinations, and textbook selection. These students exhibited an inclination towards the "native-speakerism" ideology prevalent in most educational institutions in China, despite recognizing the existence of China English as a localized English variety. This suggests that China English is gradually emerging or developing.

10:45-11:10

86624 | *Employability Skills Towards Sustainable Development Goals (SDG) 8th Decent Work and Economic Growth of Undergraduate TVET Students in Southern University, Malaysia*

Zanariah Ahmad, Universiti Tun Hussein Onn Malaysia, Malaysia

Nurul NorSyafika Mohd Nasir, Universiti Tun Hussein Onn Malaysia, Malaysia

Umawathy Techanamurthy, Universiti Kebangsaan Malaysia, Malaysia

Sustainable Development Goals (SDGs) are a global framework designed to address pressing challenges and promote prosperity while protecting the planet. Central to these goals is the enhancement of employability skills, which are crucial for ensuring that individuals are equipped to meet the demands of the modern job market. This study explores the employability skills of final-year TVET undergraduate students at southern university in Malaysia, particularly their readiness for employment in line with Sustainable Development Goals (SDGs) focusing on the 8th SDG: Decent work and Economic growth. Using a quantitative approach with survey as research design, the research evaluates several key employability skills, such as self-management, communication, digital and technology skills, teamwork, critical thinking, and leadership. The results show considerable differences in students' abilities across these skills, with high proficiency in digital and technology skills (first rank: 5.57) and self-management skills (2nd: 5.41), besides teamwork Skills (3rd rank: 4.00) and leadership skills (4th rank: 2.90) and while communication skills (5th rank: 2.07) and critical thinking skills (last rank: 1.04) are perceived as less developed. Collaborating with industry partners can ensure that the skills taught align with market needs. For policymakers, developing policies that mandate comprehensive employability skill training and provide necessary funding and support for educational initiatives is crucial. This research offers valuable insights into TVET education, providing practical recommendations for better preparing graduates for the job market by equipping them with essential skills for their career.

# Notes

[illegible]



11:25-12:40 | Room 601 (6F)

## Wednesday Onsite Parallel Session 2

English as a Medium of Instruction

Session Chair: Chen-An Chang

11:25-11:50

83191 | *English as a Medium of Instruction in Tunisian Higher Education Institutions: Exploring Attitudes, Challenges and Opportunities*  
Karim Karmi, The Open University, United Kingdom

To keep pace with the requirements of globalization, a lot of universities across the globe have started teaching various academic subjects in English. In Tunisia, two higher education institutions have embarked on the experience of teaching in English, instead of French. The aim of the present study was threefold. First, it sought to explore the stakeholders' attitudes towards this shift. By stakeholders, we mean students and teachers. Second, it aimed at probing the challenges that might arise in the classroom. By challenges, we mean the linguistic and pedagogical difficulties that students and teachers might face. Third, the study investigated the reasons that led teachers and students to opt for English as a medium of instruction, instead of French. The participants were 335 students and 14 teachers selected from two Tunisian universities teaching in English. Data was collected by means of questionnaires, interviews, and classroom observations. The findings showed that there is a positive attitude towards English, in contrast to French. In other words, both, students and teachers are enjoying the experience and they hope that English will officially become the medium of instruction in Tunisia. Students and teachers reported a number of linguistic and pedagogical challenges, and they mainly ascribed them to the abrupt transition from French to English. The vast majority of the respondents, be they students or teachers opted for English as a medium of instruction to maximise their chances of getting a job abroad. It is also worth noting that most teachers stated that teaching through English helps them when it comes to publishing academic articles.

11:50-12:15

84210 | *Bridging the Gap: Taiwanese Students Navigate Challenges and Forge Success in EMI Classrooms*

Chen-An Chang, National Taiwan University, Taiwan

Shan-Yun Huang, National Taiwan University, Taiwan

I-Jan Peng, National Taiwan University, Taiwan

Taiwan's recent bilingual education policy has driven universities to promote English-medium instruction (EMI) courses. While research has explored teacher perspectives on EMI implementation, student experiences remain understudied. This quantitative study aims to address this gap by investigating the perceptions and self-reported experiences of 1,137 monolingual Mandarin-speaking university students enrolled in EMI courses. The study employed surveys to collect data on student confidence, preferred learning activities, and perceived challenges. The selected results (n= 1137) reveal that 55.6% of students exhibit moderate confidence in using English for coursework. Group discussions and applying course content to real-world scenarios are the two most favored activities (preferred by 31.4 % and 25.2% of students, respectively). Conversely, understanding lecture content delivered by the instructor in English and formulating questions in English were the primary difficulties reported by 41.5% and 38.8% of students respectively. Furthermore, nearly 39% of students identified pre- or post-class supplementary materials as the most effective learning resource. Students also valued instructor-provided learning aids, with 46.7% appreciating supplementary materials and 41.5% finding glossaries for terminologies beneficial. More detailed findings will be provided in the talk. This research sheds light on student preferences, challenges, and learning needs in EMI courses. By highlighting these aspects, the study aims to inform instructors on how to effectively plan and deliver EMI instruction while providing appropriate learning resources aligned with students' varying English abilities.

**11:25-12:40 | Room 603 (6F)**

# **Wednesday Onsite Parallel Session 2**

**Design, Implementation & Assessment of Innovative Technologies in Education**

**Session Chair: Ivan Cherh Chiet Low**

**11:25-11:50**

88208 | *A Preliminary Study on Learning Environments and Technology Integration: Towards Developing an AR-Enhanced Board Game for Scientific Critical Thinking*

Ronnakorn Rattanachathada, Khon Kaen University, Thailand

Parama Kwangmuang, Khon Kaen University, Thailand

Pornsawan Vongtathum, Khon Kaen University, Thailand

Romwarin Gamlunglert, Khon Kaen University, Thailand

Sanit Srikoorn, Khon Kaen University, Thailand

Science education faces challenges in fostering critical thinking skills among students, particularly in resource-constrained environments. This study examines the readiness for implementing an Augmented Reality (AR) enhanced board game to promote scientific critical thinking among 9th-grade students in opportunity expansion schools in Khon Kaen, Thailand. The research objectives were to assess current learning environments, students' technological readiness, their experiences with scientific critical thinking, and potential opportunities and challenges for AR-enhanced board game implementation. A descriptive survey design was employed, involving 275 students from 44 schools, selected through systematic sampling. Data were collected using a structured questionnaire and analyzed using descriptive and inferential statistics, including one-way ANOVA. Key findings revealed varied technological infrastructure across schools, with 88% having internet access but limited computer availability. Students showed high familiarity with smartphones (78.5%) but limited experience with AR (67.3% had no experience). While 52.7% of students reported a moderate to excellent understanding of scientific critical thinking, engagement in related activities varied. Students expressed high interest in AR (52.8%) and board games (60%) for learning. This study contributes novel insights into the feasibility of implementing AR-enhanced board games for scientific critical thinking in resource-constrained settings, highlighting opportunities and challenges for educational innovation.

**11:50-12:15**

82242 | *PMS Module Impact on Computational Thinking and Motivation: An Exploratory Case Study*

Masyithoh MD Zuber, Universiti Sains Malaysia, Malaysia

Mohd. Asyraf Mansor, Universiti Sains Malaysia, Malaysia

Khairul Syafiq Osman, Sekolah Kebangsaan Bukit Minyak, Malaysia

Computational thinking facilitates the resolution of complex problems in a more efficient manner. It instructs the brain to think in a more practical and organised manner. Nonetheless, motivation cannot be overlooked, as it encourages individuals to focus and persist in their efforts at solving a given problem. Both are essential components in the PMS module for programming-based mathematics education in elementary schools. The study aimed to determine how the PMS module influences students' motivation and capacity for computational reasoning in completing a given assignment. This investigation involved the participation of 31 fifth-year primary school students and two primary school mathematics teachers. An exploratory case study was employed to delve more deeply into the cultivation of computational thinking and motivation that can be attained via the PMS module. Observation, semi-structured interviews, and document sources were utilised to collect the data. The study's findings indicate that students concur that the utilisation of the PMS module enhances their computational thinking abilities and fosters a greater eagerness to persist in studying and delve into further lessons. Additionally, teachers interviewed also perceive that pupils display heightened enthusiasm and active engagement in their educational pursuits. This study enhances our understanding of how students and teachers perceive the implementation of programming in mathematics learning, leading to improved practice.

**12:15-12:40**

83651 | *Human vs AI: Evaluating Large Language Models (LLMs) in the Grading of Scientific Inquiry Assessments*

Ivan Cherh Chiet Low, National University of Singapore, Singapore

Swapna Haresh Teckwani, National University of Singapore, Singapore

Amanda Huee-Ping Wong, National University of Singapore, Singapore

Nathasha Luke, National University of Singapore, Singapore

The advent of AI, particularly Large Language Models (LLMs) like ChatGPT and Gemini, has significantly impacted the educational landscape, offering unique opportunities for learning and assessment. In the realm of written assessment grading, traditionally viewed as a laborious and subjective process, this study sought to evaluate the accuracy and reliability of these LLMs against human graders in an interdisciplinary course on scientific inquiry. Human graders and three LLMs, GPT-3.5, GPT-4, and Gemini, were tasked with scoring submitted student assignments according to a set of rubrics aligned with various cognitive domains, namely 'Understand', 'Analyse', 'Evaluate' from the revised Bloom's taxonomy, and 'Scientific inquiry competency'. Our findings revealed that whilst LLMs demonstrated some level of competency, they do not yet meet the assessment standards of human graders. Specifically, inter-rater reliability (percentage agreement and correlation analysis) between human graders were superior compared to between two grading rounds for each LLM respectively. Furthermore, concordance and correlation between human and LLM graders were moderate to mostly poor in terms of overall scores and across the pre-specified cognitive domains. The results suggest a future where AI could complement human expertise in educational assessment, but underscores the importance of adaptive learning by educators and continuous improvement in current AI technologies to fully realize this potential.

11:25-12:40 | Room 604 (6F)

## Wednesday Onsite Parallel Session 2

### Literature & Language Learning

#### Session Chair: Ann-Marie Simmonds

11:25-11:50

87133 | *The Implementaion of Thematic Design as Strategy for Contemporary Japanese Literature Learning*

Wafa Askho, Darma Persada University, Indonesia

Hayun Nurdiniyah, Darma Persada University, Indonesia

The purpose of this study is to develop the learning of Contemporary Japanese Literature at Darma Persada University with thematic learning design, using an integrated learning approach that combines two methods of discovery and expository in the learning process. With this, it is expected to improve learning to be more comprehensive and stimulate students to be more active during the learning process. The process of preparing material with thematic designs is (1) the selection of themes of contemporary Japanese literary works (choosing themes), (2) the continuity of themes chosen with the curriculum (integration of themes with existing curriculum), (3) the preparation of instructions (designing instruction), and (4) discussion forum activities (activities and discussion). Kurt Lewin's model was chosen as a Classroom Action Research method consisting of planning, acting, observing, and reflecting. Evaluation is carried out through student questionnaires by answering questions about the development, delivery, and absorption of material in the category of learning (Condition of Learning) raised by Robert Gagne. The results of this study are expected to be able to be an evaluation material in making a new Japanese Literature module by adding the latest information related to Contemporary Japanese Literature.

11:50-12:15

84498 | *"So You Feel the Class Has a Spirit of Competition": Exploring First-Year Saudi EFL Female Students' Perceptions of Communicative Tasks*

Hajar AL Sultan, King Faisal University, Saudi Arabia

Hoor Alsubaie, King Faisal University, Saudi Arabia

With the shift in language learning and teaching towards a more learner-centered approach, previous studies have examined Saudi EFL students' motivation, experiences, and perceptions as effective factors in language instruction and learners' engagement and achievement in the Saudi educational system. However, there is a notable dearth of qualitative research focusing on students' perceptions toward classroom tasks in relation to motivation and other factors affecting their engagement and achievement. Taking a qualitative lens as an instrumental tool to empower learners's agency and metacognitive skills, the current study drew on participant observations and in-depth semi-structured interviews with 10 participants and Vygotskian sociocultural theory to explore the perceptions of first-year Saudi EFL female students toward classroom tasks assigned to them during the Listening and Speaking (1) course at King Faisal University. The study also focuses on the factors influencing their perceptions and their task engagement. Through thematic analysis, findings showed that participants had diverging task perceptions in relation to the effectiveness and the potential challenges of individual versus group work and the multifaceted nature of group work. While group work enhanced understanding and collaboration, it also presented challenges like maintaining focus and resolving conflicts. Conversely, individual work promoted independence and focus but led to stress and difficulties in self-regulation. Psychological, emotional, attitudinal, and motivational factors impacted learners' perceptions toward assigned communicative tasks, their judgment, and their behavior. Additionally, task engagement was affected by metacognitive skills, like self-awareness, self-regulation and meta-talk, communicative engagement, and social engagement. Findings offer pedagogical suggestions for communication classrooms, task engagement.

12:15-12:40

88564 | *Navigating the Use of Writing Templates and Models in an Undergraduate Writing Course*

Ann-Marie Simmonds, Rabdan Academy, United Arab Emirates

Writing instructors often receive conflicting messages regarding the use of writing models. On one hand, without a sample, students struggle to produce a specific piece of writing. At the same time, students who are exposed to model or sample writing often reproduce these texts instead of seeing them as a tool to shape their own writing. This paper examines the effectiveness of using writing templates and samples in teaching English as a Second Language (ESL) students within the framework of an undergraduate English course conducted over five weeks. The research focuses on three assessments: a proposal, annotated bibliography and essay. Twelve samples were selected per assessment and per group – representing high, medium and low performances – resulting in a total of 72 samples. Based on instructor feedback, it was observed that templates helped students to grasp basic organizational components of the assigned tasks, providing essential structural support. However, they were insufficient in developing higher-order writing skills such as specificity, language proficiency, and critical engagement with a written text. The findings suggest that though beneficial, writing templates and models must be supplemented with more targeted instructional strategies to enhance students' overall writing proficiency.



11:25-12:40 | Room 605 (6F)

## Wednesday Onsite Parallel Session 2

Islamic Studies in Education

Session Chair: Abdul Ziqron Mopoliu

11:25-11:50

86819 | *An Empirical Analysis of Islamic Leadership: Mediating Role of Teacher Well-being*

Rita Pusvitasari, King Mongkut's Institute of Technology Ladkrabang, Thailand

Chantana Viriyavejakul, King Mongkut's Institute of Technology Ladkrabang, Thailand

Piyapong Sumettikoon, King Mongkut's Institute of Technology Ladkrabang, Thailand

This study investigates how Islamic leadership affects teacher well-being, commitment, and performance. Further, this study examines teacher well-being's mediating function in the relationship between Islamic leadership and commitment to their performance. Data from 237 teachers at private Islamic schools in the border south of Thailand were gathered via a self-administered survey. This study's data evaluation method utilized SPSS and structural equation model-partial least square (SEM-PLS). The findings of the path analysis showed that Islamic leadership (ISL) positively affects teacher well-being and commitment. ISL insignificantly affects the performance of teachers. Teacher well-being positively intercourse between commitment and performance. In addition, teacher well-being has mediated Islamic leadership and commitment to teacher performance. Utilizing importance-performance map analysis (IPMA) and SEM-PLS demonstrated that Islamic leadership and commitment are critical factors in determining teacher performance at private Islamic schools. Therefore, Islamic leadership (ISL) encourages teachers' well-being to enhance their performance through commitment to reaching the organization's goals. This research provides novel insights into the theory and practice of Islamic leadership at private Islamic schools. Furthermore, empirical data is provided to support the proposed paradigm. The study also provides evidence for the teacher's well-being mediation role in Islamic leadership, commitment, and performance.

11:50-12:15

85514 | *Modernizing Islamic Boarding School in Indonesia: Challenges and Opportunities in Involving Technology for the Future Learning*

Abdul Ziqron Mopoliu, Monash University, Australia

Adhitya Amarulloh, Monash University, Australia

In the era of globalization, the integration of digital technology in education is increasingly crucial for enhancing the learning and teaching process. However, Islamic boarding schools (Pondok Pesantren) in Indonesia largely adhere to traditional methods, with minimal use of technological tools. This essay examines the challenges and potential benefits of incorporating digital technology into these institutions as an innovation for better learning process. Key obstacles include the existing leader-centric system that restricts technology use, the curriculum's heavy focus on Islamic studies, and insufficient learning facilities. Despite these challenges, modernizing the Pesantren system by integrating technology could significantly boost student engagement and educational outcomes. This paper argues for raising awareness among Kiyais (school leaders) about the advantages of technology in education, gaining their support, and ensuring students are well-prepared to use technology responsibly. Additionally, government support is essential for providing the necessary resources. Through these efforts, Islamic boarding schools can modernize while preserving their core values, ultimately enhancing their relevance and appeal.

11:25-12:40 | Room 607 (6F)

## Wednesday Onsite Parallel Session 2

The Teaching of Science, Health & PE

### Session Chair: Amnaj Sukjam

11:25-11:50

82537 | *Improving Nutrition Education and Physical Fitness in High School through a Community-Based Haheho App Intervention*

Ropik Hidayat, University Negeri Semarang, Indonesia

Syahrizal Islam, University Negeri Semarang, Indonesia

Heny Setyawati, University Negeri Semarang, Indonesia

Siti Baitul Mukarromah, University Negeri Semarang, Indonesia

Hermawan Pamot Raharjo, University Negeri Semarang, Indonesia

With the rise of sedentary lifestyles post-COVID-19 pandemic and the adverse effects of handphone use and unhealthy eating habits among high school students, teachers and staff, there is an urgent need for innovative interventions that promote nutrition education and physical activity. So far, several conventional approaches have not shown significant results. This study addresses the need for school communities to initiate active and healthy lifestyle changes by utilizing mobile technology through a school community-based Haheho Apps intervention. Methods: Experimental study with one group pretest-posttest design, involving 256 school community members aged 15-18 years old. 21 teachers and school staff aged 30-58 years old, Participants will receive access to community-based Haheho Apps for 9 Weeks focusing on nutrition education and physical activity. Student and teacher groups receive age-appropriate materials and physical activities. Pre- and post-intervention assessments will be conducted to measure changes in nutrition knowledge, BMI, physical activity levels and physical fitness. 277 participants consisting of students, teachers and school staff took the pretest and posttest, participants in the control group showed improvement in nutrition knowledge, BMI, physical activity and physical fitness. Statistically significant decreases and increases were recorded overall, there was a significant decrease in BMI of 42% in the obese group, an increase in BMI of 33% in the less than ideal group, and 25% had no change. The Haheho Apps intervention based on school community is effective in improving knowledge, BMI, physical activity and physical fitness of school community members.

11:50-12:15

85577 | *Exploring Student Dispositions Toward Uncertainty in Science Learning: Development and Validation of a Multidimensional Scale*

Ying-Chih Chen, Arizona State University, United States

Jongchan Park, Arizona State University, United States

Michelle Jordan, Arizona State University, United States

Carlos Meza-Torres, Arizona State University, United States

Emily Starrett, Arizona State University, United States

This study aims to conceptualize the multifaceted dimensions of student dispositions towards navigating uncertainty in science learning, validate a scale measuring these dispositions, and examine the relationship between these dispositions, curiosity, and academic achievement. The research developed a multidimensional scale for uncertainty navigation in science learning, considering four constructs: epistemic orientation toward uncertainty, positive and negative affective reactions, self-efficacy, and strategies for navigating uncertainty. Survey data from 876 middle school students were analyzed to investigate the validity of the scale. Exploratory and confirmatory factor analyses supported a five-factor model of uncertainty navigation, revealing that positive and negative affective reactions to uncertainty are distinct constructs, necessitating separate consideration rather than a unidimensional approach. Structural equation modeling (SEM) was employed to examine the relationships among dispositions toward uncertainty navigation, curiosity, and academic achievement. The SEM findings indicate that curiosity (e.g., joyful exploration, deprivation sensitivity) serves as a crucial mediator in the positive relationships between three dimensions of uncertainty navigation (epistemic orientation toward uncertainty, positive affective reactions, negative affective reactions) and academic achievement. Without epistemic curiosity as a mediator, positive and negative affective reactions to uncertainty negatively predict student learning achievement. The results demonstrate that students exhibit complex emotions when engaging in an uncertainty-driven learning environment in science.

12:15-12:40

88282 | *Application of Teachable Machine Program for Developing Volleyball Skills*

Amnaj Sukjam, Rajamangala University of Technology Suvarnabhumi, Thailand

Anek Putthidech, Rajamangala University of Technology Suvarnabhumi, Thailand

Prinya Nato, Rajamangala University of Technology Suvarnabhumi, Thailand

Sangtong Boonying, Rajamangala University of Technology Suvarnabhumi, Thailand

This research aimed to develop and evaluate the effectiveness of the Teachable Machine program in developing volleyball skills, focusing on using artificial intelligence (AI) technology to analyze and improve volleyball playing techniques. The sample consisted of 60 undergraduate volleyball players, divided into an experimental group and a control group, 30 people per group. The research methodology began with training the Teachable Machine model with images and videos of correct volleyball playing postures. The program was then used to analyze and provide real-time feedback to the experimental group during training for 8 weeks, while the control group received traditional training. The volleyball skills of both groups were assessed before and after the experiment. The results showed that the experimental group using the Teachable Machine program had significantly better volleyball skills than the control group ( $p < .05$ ), especially regarding serving accuracy, setting, and spiking. In addition, participants in the experimental group reported higher levels of satisfaction and motivation in training. This study demonstrates the potential of using AI technology through the Teachable Machine program in developing volleyball sports skills, which can be applied in training and teaching to increase learning efficiency and develop athletes' skills.

11:25-12:40 | Room 608 (6F)

# Wednesday Onsite Parallel Session 2

## Higher Education

### Session Chair: Zhaotong Li

11:25-11:50

88180 | *The Impact of College Students' Artificial Intelligence Literacy on Self-Efficacy and Learning Engagement*

Yilin Feng, University of the Thai Chamber of Commerce, Thailand

Hui-Wen Vivian Tang, Ming Chuan University, Taiwan

Na Li, University of the Thai Chamber of Commerce, Thailand

With the rapid development of science and technology, the application of artificial intelligence (AI) in education is changing the face of education. Artificial intelligence (AI) literacy has become an essential skill for contemporary college students. This study investigates the relationship between AI literacy, self-efficacy, and learning engagement among college students. Through convincing sampling, a total of 500 valid questionnaires were collected across three universities in Yunnan Province, China. Data analysis by SPSS revealed that AI literacy positively and significantly influences both self-efficacy and learning engagement. Additionally, self-efficacy was found to have a positive and significant impact on learning engagement, mediating the relationship between AI literacy and learning engagement. The study also found that students with a certain level of information literacy can engage in more effective self-learning, thereby enhancing their specialized knowledge and skills, which in turn positively affects their self-efficacy and learning engagement. The findings provide valuable insights for further reinforcement practices, aiming at strengthening college students' learning engagement and overall academic effectiveness. As for limitations of the study, samples collected are restricted to three colleges. Future studies can extend the present study to colleges in other provinces of China.

11:50-12:15

85657 | *Undergraduate Students' Intention to Use Artificial Intelligence Technology for Plant Identification: Validating the Research Instrument*

John Bukenya, Makerere University, Uganda

Paul Muyinda, Makerere University, Uganda

Maurice Isabwe, University of Agder, Norway

Godfrey Mayende, Makerere University, Uganda

James Kalema, Makerere University, Uganda

Use of Artificial Intelligence (AI) in plant taxonomy is an emerging scholarly field that has attracted less scholarly attention. In order to understand the predictors of undergraduate students' behavioral intention (BI) to use AI technology for plant identification, we developed a research instrument based on the extended unified theory of acceptance and use of technology (UTAUT2) and three additional BI predictors/constructs. Following a cross-sectional survey involving 500 respondents from basic and agricultural science faculties in five Ugandan public universities after one month of using AI applications (PictureThis) to identify plants, a self-administered questionnaire was administered. Data were analyzed with structural equation modelling, partial least squares (SEM-PLS) using SmartPLS4 software. Confirmatory Factor Analysis showed student agreement with intention to use and intention to switch to AI applications, particularly PictureThis app (Eigenvalues > 1.00). Exploratory Factor Analysis gave a Bartlett's test of Sphericity of 0.001, indicating highly significant correlations among the independent variable (IV) constructs. Average Variance Extracted (AVE) values of above 0.5 for all constructs confirmed convergent validity. HTMT ratios of correlation of less than 0.9 for all IV constructs confirmed their independent influence on behavioral intention to use AI PictureThis app. Cronbach's alpha of above 0.70 for all constructs confirmed construct reliability. Composite reliability values of above 0.70 confirmed high reliability of the constructs. Value Inflation Factor (VIF) values of below 3.00 confirmed non-existence of multicollinearity and that all the ten IV constructs in the research framework could independently determine students' BI to use AI technology for plant identification.

12:15-12:40

88451 | *Enhancing Interdisciplinary Critical Thinking Skills in Higher Education with Improved Content Selection and Syllabus Sequencing Presented by Relationship Mapping*

Chee Chong Teo, Nanyang Technological University, Singapore

Zhaotong Li, Nanyang Technological University, Singapore

Bohao Ma, Nanyang Technological University, Singapore

Seng Chee Tan, Nanyang Technological University, Singapore

Seyed Mehdi Zahraei, University of Tasmania, Australia

This paper presents an integrated teaching approach aimed at enhancing interdisciplinary critical thinking (CT) skills in higher education by improving content selection and syllabus sequencing. The approach is grounded in Cognitive Load Theory (CLT), which states that course content is biologically secondary knowledge and should be selected and sequenced in an organized manner to minimize cognitive load, allowing students to better grasp interdisciplinary connections. Based on the CLT, the approach proposes that the content and syllabus should be sequenced through three primary stages, including Core Domain, Complementary Domains, and Exogenous Domains. A key feature of this approach is the use of Relationship Mapping (RM), a visual-based tool that helps students understand and apply interdisciplinary relationships within the course material. RM is used to enhance the presentation of topic sequencing and lecture summaries, while students are required to design and develop RM in their assignments to support understanding and answer visualization. The effectiveness of this approach was tested using the Mann-Whitney U test with survey results from students taking a final-year undergraduate course on Intermodal Transportation. The experimental group demonstrated significant improvement in analytical skills, self-efficacy, self-regulation, and out-of-the-box thinking compared to the control group. However, no significant gains were observed in evaluative reasoning, interpretation, inference, creative self-concept, and personal identity, suggesting areas for further refinement. The study contributes to the existing literature by providing a novel method for enhancing interdisciplinary CT in higher education, particularly with mapping tools like RM.



11:25-12:40 | Room 703 (7F)

## Wednesday Onsite Parallel Session 2

Learning Experiences, Student Learning & Learner Diversity

Session Chair: Janice Gumasing

11:25-11:50

85587 | *The Role of Social Comparison in Academic Setting on Psychological Well-being of College Students Engage in Thesis*

Linda Primana, Universitas Indonesia, Indonesia

Nadya Larissa Dewi, Universitas Indonesia, Indonesia

College students who are completing their thesis face many challenges and feel more negative emotions than when they were in the middle years of their studies. This pressure has the potential to impact their psychological well-being. They tend to look for positive comparisons in their academic achievements by comparing their abilities and academic achievements with others'. This study investigate the role of social comparison in the academic setting on the psychological well-being of students who are engaging on their thesis. Data were collected through an online survey from 152 participants from state and private universities in Indonesia. Ryff's Psychological Well-Being Scale and the Academic Social Comparison Scale are used to measure students' psychological well-being and social comparison in academic setting. The results indicate that social comparison contributes 16.1% to the psychological well-being of students. Both types of social comparison, upward and downward comparison are negatively influenced psychological well-being. Hence, the more often a person compares himself/herself to others, his/her psychological well-being tends to decline. This study also found that gender correlate with psychological well-being, and age as well has relationship both with downward social comparison and upward social comparison in academic setting. These findings have important implications in understanding how social comparison can influence the psychological well-being of students who are engaging on their thesis, and emphasize the important role of downward social comparison and upward social comparison in academic setting.

11:50-12:15

84727 | *The Influence of Teacher-Student Relationships on Students' Academic Development and Achievement*

Watchareepun Pahanit, Mahasarakham University, Thailand

Eric A. Ambele, Mahasarakham University, Thailand

This study aims to investigate the influence of teacher-student relationships on students' academic development and achievement. The primary objective is to examine the nature of student-teacher relationships in English classrooms at a northeastern university in Thailand. Data were collected through questionnaires and follow-up interviews with students enrolled in the English for International Communication program. Responses were obtained from 100 undergraduate students across different academic years and analyzed using descriptive statistics for the questionnaire data and qualitative content analysis for the interview data. The findings reveal that the majority of students are aware of the significant and effective influence of teacher-student relationships on their academic development and achievement. However, some students remain unaware of the importance of this relationship. Neither group of students acknowledged the role of teacher-student relationships in enhancing classroom quality and academic performance. Therefore, the study suggests that both students and teachers should focus on improving teacher-student relationships, as these relationships serve as a crucial bridge for effective academic processes. Ignoring the importance of this relationship in the classroom can negatively affect academic performance.

12:15-12:40

86260 | *Identifying Ergonomic Factors Influencing Students' Learning Motivation and Academic Performance in Online Classes*

Janice Gumasing, De La Salle University, Philippines

During the COVID-19 pandemic, students experienced significant mental and physical discomfort from taking online classes, which negatively impacted their motivation to learn and their academic performance. Studies have shown that students often have negative feelings about online learning, which raises concerns about their learning abilities and participation in school. To address this issue, this study aimed to identify the factors that affect students' learning motivation and academic performance in an online learning environment through an innovative ergonomic assessment framework. A total of 316 respondents participated in an online survey conducted via social media platforms, using purposive sampling. The study simultaneously analyzed ergonomic indicators for physical, cognitive, and macro-ergonomics using multiple linear regression. The findings revealed that the design of the workstation, use of learning management systems (LMS), access to technology, teaching methods, temperature levels, and visual learning styles significantly influenced students' learning motivation, which in turn impacted their academic performance. Therefore, it is crucial for those involved in distance learning to consider these motivating factors. This paper serves as a guide to help plan course programs effectively, ensuring their feasibility and engaging students productively, as online learning becomes increasingly prevalent. Additionally, it offers recommendations and insights to assist schools, educators, and students in enhancing learning motivation and academic performance.

**11:25-12:40 | Room 704 (7F)**

# **Wednesday Onsite Parallel Session 2**

**Primary & Secondary Education**

**Session Chair: Phal Chea**

**11:25-11:50**

84221 | *Investigating Time and Treatment Effects on Junior High Students' Knowledge, Attitude, Self-Efficacy, and Coping Strategies with Age as a Covariate*

Lady Valerie Ann Magsalin, Polytechnic University of the Philippines, Sta. Mesa, Philippines

Bernadette Cunanan, Polytechnic University of the Philippines, Sta. Mesa, Philippines

Aishan Joy Israel, Polytechnic University of the Philippines, Sta. Mesa, Philippines

Alena Palaming, Polytechnic University of the Philippines, Sta. Mesa, Philippines

Lucero Jr. Trangia, Polytechnic University of the Philippines, Sta. Mesa, Philippines

Joel Soliveres, Polytechnic University of the Philippines, Sta. Mesa, Philippines

This study investigates the significant interaction between time and treatment on junior high school students' knowledge, attitude, refusal self-efficacy, and adaptive coping strategies, with age as a covariate. Substance use among adolescents is a pressing public health issue, necessitating effective school-based prevention programs. This research involved 390 students from Grades 7 to 10, who participated in the Lusog-Isip Kabataan Education (LIKE) Program. The treatment group consisted of 200 randomly selected students, while 190 students formed the wait-control group. A pretest-posttest design was employed using surveys to measure knowledge, attitudes, refusal self-efficacy, and coping behaviors. Data were analyzed using descriptive statistics and repeated measures ANOVA. The results indicated that the intervention did not produce significant within-subjects effects for most outcome measures, suggesting no substantial changes over time within individual students. However, significant between-subjects effects were observed for problem-solving and adaptive coping strategies among Grades 7 and 8, and for knowledge and cognitive reappraisal across the entire sample. These findings highlight the importance of demographic factors, particularly age, in shaping the effectiveness of interventions. The study recommends tailoring future interventions to account for age-related differences, implementing differentiated strategies to address varying cognitive and emotional maturity levels. Enhancing educational content and cognitive behavioral techniques can improve outcomes in knowledge and coping strategies. A comprehensive approach involving teachers, counselors, and parents is suggested to create a supportive environment for reinforcing learned skills. These insights can inform the design and implementation of more effective substance use prevention programs in school settings, ultimately reducing substance use among adolescents.

**11:50-12:15**

84208 | *Exploring Junior High School Students' Views on Mental Health and Substance Use*

Christian Villegas, Polytechnic University of the Philippines, Philippines

Isaiah Crisostomo, Polytechnic University of the Philippines, Philippines

Ana Kristina Eraga, Polytechnic University of the Philippines, Philippines

Maria Lourdes Rebulanan, Polytechnic University of the Philippines, Philippines

Zacky Taplac, Polytechnic University of the Philippines, Philippines

Mary Joy Villalino, Polytechnic University of the Philippines, Philippines

Mental health and substance abuse have emerged as a major universal challenge, the Philippines included. This study aims to shed light on the mental health and substance use issues from the viewpoint of Junior High School Students. It seeks to explore the difference in knowledge, attitudes, and coping mechanisms through various grade levels. Three hundred ninety (390) students across Grade 7 to 10 from the Polytechnic University of the Philippines Laboratory High School (PUPLHS) were asked to participate in the study. Multivariate Analysis of Variance (MANOVA) and One-way ANOVA test were used to determine the relationships between the different grade levels and the wide range of dependent variable involved in this study. Results showed significant differences in knowledge and coping mechanisms among different grade levels with the Grade 9 Students exhibiting remarkable improvements in coping-cognitive reappraisal and problem-solving capabilities. Yet, a decline in religious coping mechanisms was detected among students in the higher grade level. The findings highlight the value of customized educational programs that incorporates support mechanisms to nurture the students' coping skills. It likewise emphasized the value of a good intervention system through collaboration among administrators, educators, parents, and health professionals to enable learners deal with mental stress. Mental health education must be embedded into the curriculum with structured activities and exercises to guarantee that students foster life-long coping skills during this formative stage in their lives. Further research is proposed to investigate the root causes contributing to the regression in religious coping mechanisms across higher grade level.

**12:15-12:40**

86136 | *Gender Disparities in Academic Achievement in Cambodian High Schools: Evidence from Quantile Regression and Oaxaca-Blinder Decomposition*

Phal Chea, Cambodia Development Resource Institute (CDRI), Cambodia

Seyhakunthy Hun, Nagoya University, Japan

Najung Kim, Korea University, South Korea

In Cambodia, the reversal of the gender gap in high school academic achievement became evident since 2014, subsequent to the implementation of significant reforms in the high school leaving examination system. This phenomenon, though remained largely unnoticed by the public and policymakers until recently. While there are studies on gender equality of learning in Cambodia, none have specifically focused on the reversal of the gender gap or delved into factors beyond the mere correlation between gender and academic performance. Leveraging survey data and administrative standardized test scores from 23 schools, this study employs multivariate regression analyses, quantile regressions, and Oaxaca-Blinder decomposition to estimate gender gaps in academic achievement and identify factors contributing to the learning gap. Our findings indicate a consistent academic advantage for female students, particularly evident at the lower tail of the achievement distribution in reading and mathematics, learning disparities attributed to individual and household characteristics. Overall, the study unveils critical new insights into the gender reversal trends in Cambodia, underscoring the urgency of targeted interventions to address the underlying factors contributing to this new phenomenon.

11:25-12:40 | Room 705 (7F)

# Wednesday Onsite Parallel Session 2

Knowledge Creation, Preservation & Access

Session Chair: Nuno Martins

11:25-11:50

84119 | *Discovering Catalysts for Librarians' Creativity to Enhance Learning Environments*  
Joenabie Arevalo, Ateneo de Manila University, Philippines

Employee creativity is being recognized as an essential skill in different professions, including education and librarianship. For librarians, creativity is vital to be able to adapt to changes in the digital era, and be able to help improve the learning environment. Despite this, the factors that influence creativity among librarians remain underexplored. This study investigates the predictors of creativity among librarians in the Philippines, focusing on the interplay between work environment and personality traits. Using multiple regression analysis on data from 106 librarians, the research examines the impact of different elements such as organizational encouragement, sufficient resources, and neuroticism on creativity. The results of the study reveal that neuroticism negatively predicts creativity, suggesting that lower levels of neuroticism are associated with higher creativity. Contrary to previous studies, sufficient resources did not significantly predict creativity in this context. The findings highlight the unique cultural and organizational influences on creativity, suggesting that interventions to reduce neuroticism may enhance creative performance among librarians. The study deepens our understanding of creativity in resource-constrained environments and offers recommendations for future research and practical applications in Philippine librarianship.

11:50-12:15

85060 | *Documentaries as a Tool for Collecting and Disseminating Memories of Self-Initiated Community Practices: The Case of Workshop School*

Nuno Martins, Polytechnic Institute of Cavado and Ave, Portugal

Daniel Brandão, University of Minho, Portugal

Mateus Carvalho, University of Minho, Portugal

Bruno Silva, Polytechnic Institute of Viana do Castelo, Portugal

The aim of the research presented in this paper was to observe and record in documentary form the human dimension intrinsic to self-initiated community practices in social neighborhoods in V.N. Gaia, Portugal. This work was carried out as part of the research project "ECO: Echoing the Community Self". Of the practices identified by the ECO project, Workshop School (WS) was chosen as the object of analysis and intervention in this documentary work. This project adopted an action-research methodology and used audiovisual tools in order to respond to an identified problem: the lack of visibility of the impact that the activity developed by WS has on people. The work was divided into 3 stages: a) fieldwork to diagnose the problem; b) intervention (documentary film aimed at giving visibility to the people who directly benefit from the WS's activity: the trainees); and finally, c) evaluation of the result. In order to observe and diagnose the problem, it was also necessary to adopt an ethnographic methodology, using fieldwork techniques and methods to get closer to the object of study, the most important elements in the creation and development of self-initiated practices. This work informed the next stage, in which different mechanisms were adopted to record and construct an audiovisual narrative, based on the testimonies of the people involved in the learning processes mobilised by WS. In order to evaluate the results, they were presented with the intention of contemplating and analysing the reception and perception of the people portrayed in the project.

12:15-12:40

88351 | *Innovative Approaches in Outdoor Education: Lifelong Learning Through Surfing in Elderly Populations*

Bruno Silva, Polytechnic of Viana do Castelo, Portugal

Sofia Gonçalves, Surf Clube de Viana, Portugal

João Zamith, Surf Clube de Viana, Portugal; University of Trás-os-Montes and Alto Douro, Portugal

Nuno Martins, Polytechnic of Cavado and Ave, Portugal

Ricardo Franco Lima, Polytechnic of Viana do Castelo, Portugal

This research explores the motivations and meanings behind the participation of 23 elderly individuals over 70 years old in the BlueGym project, an initiative aimed at promoting physical activity in natural blue spaces through innovative approaches. Despite having no prior experience in surfing, all participants were able to swim. A focus group was conducted using a previously validated semi-structured interview, following a structured process with discussion dynamics and time-management oversight. The interview was transcribed, coded, and analyzed using NVIVO software. Five main motivational categories were identified: i. reasons; ii. aquatic environment; iii. expectations; iv. prejudices; and v. meaning. The primary motivations for participation included social interactions, physical activity, and connection with the sea and nature. The innovative aspect of using the aquatic environment provided participants with a sense of freedom, well-being, and connection to the environment. Participants initially had high expectations and enthusiasm but also expressed reservations about engaging with the sea and using unfamiliar equipment. Prejudices related to their generation's attitudes toward surfing were also noted. The analysis reveals that the project was perceived as unique and challenging, offering a sense of achievement and fulfillment. The absence of dropouts underscores the experience's significance and potential, demonstrating that elderly individuals can engage in innovative activities like surfing without prior experience. This not only challenges stereotypes but also promotes inclusion in the local surfing culture. Additionally, the educational benefits were evident as participants overcame personal barriers, acquired new skills, and engaged in lifelong learning, contributing to their cognitive and social development.



**11:25-12:40 | Room 707 (7F)**

# **Wednesday Onsite Parallel Session 2**

**Educational Policy, Leadership, Management & Administration**

**Session Chair: Pauline Caintic**

**11:25-11:50**

**84233 | *Analysis of Academic Total Quality Management in Bangladesh***

Khandaker Dahirul Islam, University of Science and Technology Chittagong, Bangladesh

This paper attempts to spotlight the general principles of enhancing quality in educational institutions the concept of Total Quality Management (TQM) here is a great concern to point out how this approach has been and can be used to improve the quality of the academics. This work has been specified for Higher Education Institutions (HEIs) in Bangladesh, and it covers the whole of the institution other than specific program, department, or services. This is conducted towards an evaluation and assessment of the faculty members of the institutions of how they are to the students. This research also draws out the measurements of the satisfaction level of the students after the various facilities given by the institutions. In fact, the research will be orbited around with various student issues in a way in which these institutions are working with quality issues now will be compared with the aspect of TQM and the weaknesses as well as the strength of the quality work of these institutions will be recognized. The analysis of the data collected from interview and questionnaires with extensive survey over the students of some institutions provides how the problems with the students they face can be resolved which follows an aftermath of reaching a decision with sufficient recommendations and suggestions for ensuring quality education.

**11:50-12:15**

**82598 | *New Measures of Performance Index of Academicians***

Wai-Yan Wong, Universiti Kebangsaan Malaysia, Malaysia

Mohd Fahmi bin Ghazali, Universiti Kebangsaan Malaysia, Malaysia

Khairul bin Osman, Universiti Kebangsaan Malaysia, Malaysia

Measuring academic achievement has become problematic in recent years, owing to the proliferation of different ideas that have resulted in the development of several scales to assess academic performance. Due to the lack of justice in judging researchers from various disciplines of knowledge, relying on scientific databases such as WOS and Scopus has been insufficient. If we look closely, our current scholars have been assessed using a single generalised tool, which is somewhat misleading and unfounded, similar to comparing an apple to orange rather than a red apple and a green apple. As a result, the outcomes produced will be skewed, with pure or medical scientists benefiting at the expense of others. The development of fair measures is expected to close the knowledge and contribution gaps that existed between scientists and artists. This research aims to create a new metric that will reveal new perspectives on academic performance. Notably, the established measure tends to be comprehensive in quantifying the contributions made by scholars, who have varying amounts and quality of scholarly publications, as well as their contributions to administrations, grants, and society in general. It is intended to do so in order to create a real performance index with "ethical" values in order to close the gap between science and social disciplines, and therefore to promote any candidates who can be found using our produced index

**12:15-12:40**

**85388 | *Modeling Adaptive Performance of the Academics in Selected Public Universities in Eastern Philippines During the COVID-19 Pandemic***

Pauline Caintic, Visayas State University, Philippines

Melanie De Ocampo, University of San Carlos, Philippines

This study provides a framework for understanding the adaptive performance of academics in public universities during the COVID-19 pandemic. The COVID-19 pandemic has disrupted operations in the educational sector as the majority of schools, colleges, and universities have been impacted by this health crisis. Despite the significance of understanding adaptive performance, academic studies in the context of public universities, particularly in emerging Asian countries during uncertain conditions such as the pandemic, are very sparse. This study examines the effect of socio-demographic characteristics, big-five personality traits (i.e., openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism), transformational leadership, and perceived organizational support (POS) on the adaptive performance among academics of public universities in Leyte, Eastern Philippines in time of the COVID-19 pandemic. A predictive research design governs this study using a quantitative research strategy. The data were gathered using a self-administered online survey questionnaire. Using hierarchical multiple regression analysis, the results of the study revealed that three socio-demographic characteristics (educational level, academic position, and years of teaching experience) exhibited significant relationships with adaptive performance. Conversely, openness to experience is the only personality trait that demonstrated a significant association with adaptive performance, while the effects of extraversion, conscientiousness, agreeableness, and neuroticism are not supported. Moreover, neither transformational leadership nor POS had any evident influence on adaptive performance.

11:25-12:40 | Room 708 (7F)

# Wednesday Onsite Parallel Session 2

## Teacher Professional Development

### Session Chair: Annabelle Gordonas

11:25-11:50

85509 | *Examining How Subjective Aging Moderates the Impact of Professional Development and Career Engagement on Career Exploration Among Primary School Teachers*

Tajammal Hussain Awan, Superior University Lahore Pakistan, Pakistan

Muhammad Zia Aslam, Superior University Lahore, Pakistan

Muhammad Abubaker Malik, Abdali Grammar School Lahore, Pakistan

Ali Farhan, Government High School Wafaqi Colony Lahore, Pakistan

Nayyar Iqbal, School Education Department, Pakistan

Abdul Rauf Awan, Superior University Lahore, Pakistan

This study investigates career satisfaction, engagement, and professional development possibilities among primary school teachers influenced by subjective aging. We examine how aging views affect professional development's ability to increase career engagement and ensuing career satisfaction activities, using a sample of 265 public primary school teachers from district Lahore Pakistan. Surveys evaluating professional development opportunities, career engagement, subjective aging, and career satisfaction habits were used to gather data. The findings show that the association between career satisfaction and professional development is considerably moderated by subjective aging, with teachers who feel growing up are greatly benefiting from training opportunities. Similarly, career engagement significantly impacts career satisfaction, especially for individuals whose subjective age is quite young. These results highlight how crucial it is to take subjective aging into account when creating professional development initiatives to optimize their influence on career advancement. Discussion of the implications for teacher development programs emphasizes the necessity for individualized strategies that take into account individual variances in aging perceptions.

11:50-12:15

82580 | *Technological Pedagogical Content Knowledge (TPACK) in Action: Technology Integration by Experienced Bruneian Teachers*

Yvonne Chin Chen Yong, SM Pg Isteri Hajjah Mariam, Serasa; Ministry of Education, Brunei Darussalam, Brunei

Designing instructional plans for secondary education in non-native language settings requires educators to integrate 21st Century Learning Design (21CLD) with existing pedagogical frameworks. This study explores the challenges eighty-two local teachers faced during technological integration at one of the secondary schools in Brunei. These teachers taught different subjects in the remote area of Brunei-Muara district with a school population of five hundred and seventy-two students. Using an explanatory sequential design, quantitative data was initially collected and then supplemented with qualitative insights from ten randomly selected teachers to corroborate the quantitative analysis. Descriptive methods outlined teachers' Technological Pedagogical Content Knowledge (TPACK) through surveys, while interviews delved into teachers' technological integration experiences. SPSS analysis assessed TPACK proficiency differences, while Pearson's correlation examined the relationship between educational technology adequacy and TPACK. Qualitative thematic analysis of interview transcripts complemented survey findings. Results emphasize the necessity for improved strategies to support TPACK implementation and urge stakeholders to consider this research when budgeting for Educational Technology tools, ultimately enhancing the teaching-learning process.

12:15-12:40

88476 | *Voices from the Classroom: HEI Faculty Experiences with Flexible Learning*

Annabelle Gordonas, Polytechnic University of the Philippines, Philippines

This study investigated the narratives of faculty from Higher Education Institutions (HEIs) regarding Flexible Learning (FL) in the Philippines. It focused on capturing key insights from respondents about the implementation of FL in their institutions, the challenges they faced, and the strategies they used to overcome these challenges. Utilizing a descriptive qualitative approach, the study concentrated on the personal experiences of participants. The researcher conducted Focus Group Discussions (FGDs) using open-ended questions, which addressed: (a) the evaluation of FL implementation in their institutions, (b) the challenges encountered in delivering online teaching and learning, and (c) the strategies employed to address these challenges. The study's major findings highlighted several aspects of FL implementation in Philippine HEIs: (a) the complexity of Flexible Learning, (b) the preparation of various modalities, and (c) the design of teaching and learning plans. Thematic analysis of participants' narratives identified the following challenges: (a) the role of technology, (b) resistance to FL, and (c) accessibility issues. In response to these challenges, participants identified strategies such as: (a) maintaining academic continuity, (b) ensuring equitable access, and (c) enhancing teaching standards and skills. This exploration aims to assist HEIs in reskilling, upskilling, and cross-skilling their faculty to sustain the quality of education amidst various adversities.

# Notes

[illegible]



12:55-14:35 | Room 601 (6F)

# Wednesday Onsite Parallel Session 3

## Aesthetics & Design Education

### Session Chair: Chung-Ping Yang

12:55-13:20

83733 | *Development of Print Media for Learning Motivation Using Creative Designs in Printing, Decorating, and Book Making*  
Tanapon Tangpanyavareekul, King Mongkut's University of Technology Thonburi, Thailand  
Suchapa Netpradit, King Mongkut's University of Technology Thonburi, Thailand  
Wannarat Wirachkul, King Mongkut's University of Technology Thonburi, Thailand

The print media are currently focused on impressive design, creative graphic, and special production techniques to stand out among electronic media. The objective of this study was to create a motivated book sample to promote print media for learning enhancement by using creative design of printing, decorating, and book making. The graphic arts were designed to choose by learners in 3 themes: carnival, underwater, retro through online questionnaires, and the carnival theme was the most interesting. The mock-up of hard cover book sized of 10.63 x 12.28 inches was made by using 350-g art card paper for cover and 260-g art card paper for text with 10 die-cutting pages. The colorful graphic arts were printed on the paper with a wide color gamut of 7-color digital press. The die-cutting pages and pop-up 3D paper art was made using a digital cutter. The content in a book was included of printing systems, printing materials, product samples, special techniques of printing, production process and coating methods. The qualities of the book were evaluated by 3 experts in a printing house. The satisfactions were evaluated by the learners, staffs in the printing house and consumer samples using online questionnaire of 5-level rating scale. The qualities of content, illustration, character, and composition were very good level. The satisfaction regarding to the effectiveness, motivation and book format was very high level. Therefore, the print media using various creative designs could be applied for learning motivation and at the same time promotion of print media production.

13:20-13:45

83253 | *Collaborating with the Print Industry to Teach Print Fundamentals in Graphic Design Education*  
Kristine Kim, Kennesaw State University, United States  
Courtney Mathewson, Heidelberg USA, Inc., United States  
Sean White, Demo Room Operations; Heidelberg USA, Inc., United States

Integrating technical printing knowledge into graphic design education is crucial, especially with a focus on prepress and the printing process. Collaborating with print industry leaders like HEIDELBERG provides students valuable real-world insights and experiences. By engaging in projects like designing folding carton packages with special effects for offset printing or 12-page books with a spot color for digital printing, students gain a practical understanding of how to generate, design, and export files for high-quality prints. This hands-on approach not only enhances their technical skills but also prepares them for the demands of the industry. Strengthening these collaborations could significantly enrich the graphic design education at Kennesaw State University and better equip students for their future careers. It is essential to integrate technical printing knowledge into graphic design education. Collaboration with the printing industry in graphic design has many benefits. Working with a printing company allows students to gain real-world experience and learn about the latest trends in graphic design. Through research projects, the printing company and educators collaborated to enable students to work on real-world problems under the guidance of printers and educators. The presentation will introduce how the printer and educators work together to benefit the printer and graphic design education.

13:45-14:10

84604 | *Development of the Multimedia Modules for Interactive Online Learning to Enhance Understanding in Principles of Graphic Design on Packaging*  
Suchapa Netpradit, King Mongkut's University of Technology Thonburi, Thailand  
Tanatorn Tongsumrith, King Mongkut's University of Technology Thonburi, Thailand  
Worawimon Bunlungsup, King Mongkut's University of Technology Thonburi, Thailand

Currently, the packaging industry is experiencing a shortage of graphic designers and a lack of interactive learning materials about graphic design. The purpose was to design motivational videos and audio in 7 modules to enhance understanding of graphic design with Adobe Illustrator. Each video clip with 2-3 minutes duration was produced with Adobe Premiere Pro and uploaded to the Google Classroom platform to be accessed by QR code scanning. The qualities of the multimedia were evaluated by 3 content experts and 3 media experts using a 5-point rating scale. The learning effectiveness was observed using a specific focus group of 30 undergraduate students in the Printing and Packaging Technology program at KMUTT. The pre-tests and post-tests for each module were created with Google Forms using 10 optimal multiple-choice questions for a module with IOC and difficulty level analysis. The quality of the content was rated as good ( $\bar{x} = 4.09$ ) and the quality of the media was rated as good ( $\bar{x} = 4.43$ ). The learning efficiency, determined from the total post-test scores (E1) to the mean score of the final exercise (E2), was 87.5/88.14, which was higher than the expected criteria. The mean post-test score was 50% higher than the mean pre-test score which was a significant difference at the 0.05 level. Learners' satisfaction with the content was high ( $\bar{x} = 4.45$ ), and satisfaction with the multimedia was the highest ( $\bar{x} = 4.57$ ). This suggests that the multimedia modules could be effectively applied to improve understanding of graphic design.

14:10-14:35

88864 | *R. W. Hepburn's Natural Aesthetics and Its Implications for Aesthetic Education*  
Chung-Ping Yang, National Changhua University of Education, Taiwan

This article aims to explore R. W. Hepburn's natural aesthetics and its implications for aesthetic education. Hepburn is a pioneering figure in contemporary natural aesthetics, and his thought is deeply insightful, which can be summarized into five key aspects: 1. Emphasis on Rigorous Appreciation of Natural Beauty: A strict appreciation should incorporate both sensory and intellectual elements. Intellectual engagement can deepen aesthetic experience, while pure sensory experience alone cannot. 2. Balanced Appreciation of the Interplay between Nature and Culture. 3. Metaphysical Imagination. 4. Sublime and Awe-Inspiring Beauty: The experience of the sublime includes a sense of mystery and transcendence, akin to a feeling of wonder. 5. Conflict between Aesthetics and Ethics: Aesthetic experience is not always pure and may involve ethical considerations. For instance, the conflict between the beauty of a river valley and the construction of a reservoir presents a difficult issue of balance. Based on Hepburn's natural aesthetics, five points can be derived for aesthetic education: 1. The Goal of Aesthetic Education: To cultivate students' ability to engage in rigorous aesthetic appreciation. 2. Teaching the Integration of Nature and Culture: Educate students on how to blend natural and cultural elements or how to humanize nature. 3. Fostering Metaphysical Imagination: Encourage students to develop their metaphysical imagination. 4. Deepening Appreciation of the Sublime: Teach students to reflect on deeper aspects of beauty, such as mystery, the sacred, the sublime, and wonder. 5. Examining Aesthetics and Environmental Ethics: Guide students in considering the relationship between aesthetics and environmental ethics.

**12:55-14:35 | Room 603 (6F)**

# **Wednesday Onsite Parallel Session 3**

## **Design, Implementation & Assessment of Innovative Technologies in Education**

**Session Chair: Nino Naldoza**

**12:55-13:20**

**84162 | *Padlet as a Tool for Collaborative and Personalized Learning for University Courses***

Bei Hong, Singapore Management University, Singapore

Yi Meng Lau, Singapore Management University, Singapore

Wee Ling Loo, Singapore Management University, Singapore

Yuantao Kusnadi, Singapore Management University, Singapore

This study investigates the effectiveness of Padlet, a technology-enhanced tool, that supports collaborative and personalized learning, and its success in meeting specific learning outcomes and course objectives. We developed a framework that synthesizes the learning characteristics of technology-enabled collaborative and personalized learning, integrating the strengths of both learning modes. Unlike other studies which typically focus on a single discipline, our framework is evaluated with the use of Padlet across four university courses, spanning three disciplines (Information Systems, Economics and Law). Survey results showed that Padlet enhanced both learning types and achieved the desired outcomes. Linear regression analysis underscored Padlet's effectiveness in facilitating collaborative learning through its aesthetics and user-friendly interface, allowing effortless organization, viewing, and commenting on posts. Interestingly, the results also suggest that male students perceived Padlet as useful for collaboration to a greater degree than female students. As one of the few interdisciplinary investigations into Padlet's effectiveness, this paper contributes to the existing literature. It is also the first to assess, explicitly, Padlet's effectiveness in facilitating both collaborative and personalized learning, and to propose a framework synthesizing both approaches, which can guide future research on other technological tools.

**13:20-13:45**

**85537 | *Designing a GenAI Chatbot for Enhancing Emotional Engagement of Online Learners in Blended Synchronous Learning***

Hantong Zhao, Nanyang Technological University, Singapore

Qiyun Wang, Nanyang Technological University, Singapore

Blended learning, as a seamless integration of face-to-face and online learning, has become a new normal in the post-COVID-19 era (Saboo et al., 2021). As a particular form of blended learning, blended synchronous learning (BSL) merges in-person classroom learning with online instruction simultaneously. It allows online learners to participate in classroom learning activities from geographically separated sites in real time (Dziuban et al., 2018). It has the potential to combine the benefits of physical classroom learning and online learning and offers much flexibility. However, online learners are often less emotionally engaged due to a lack of social interactions and personalized support (Wang et al., 2017). To address this issue, this study explores designing a GenAI chatbot using ChatGPT to enhance online learners' emotional engagement by socially interacting with online learners and offering personalized instructional and social support timely. In this presentation, we will share a conceptual framework for guiding the design of the chatbot focusing on the pedagogy, social, and technical perspectives by following the educational design-based research approach. It will progress through 3-4 iterative rounds of design, implementation, and formative evaluation to gradually optimize the design of the chatbot. This research aims to fill the gap in the current empirical research on using generative artificial intelligence technology to enhance students' emotional engagement in the BSL environment. In addition, it also enriches Moore's (1989) interaction taxonomy, and provide theoretical and practical guiding principles for practitioners to constantly improve online learners' emotional engagement.

**13:45-14:10**

**85536 | *Enhancing and Monitoring the Emotional Engagement of Online Students in Blended Synchronous Learning***

Qiyun Wang, Nanyang Technological University, Singapore

Blended synchronous learning (BSL) is an instructional approach that allows online students to participate in classroom learning activities from geographically separated sites using video conferencing. Engagement is physical and psychological energy devoted to learning (Astin, 1999). Engagement is often measured in dimensions of behavioural, cognitive, and emotional (Fredricks et al., 2004). Much research has been carried out on the dimensions of behavioural and cognitive engagement. Comparatively, less research has been done on emotional engagement (Bedenlier et al., 2020). However, emotional engagement may highly affect students' behavioural and cognitive engagement and their persistence and performance (Dubovi, 2022). Nevertheless, the absence of facial expressions and body language cues, classroom atmosphere, and social support often makes it hard for online students to be emotionally engaged in a BSL environment (Aladsani, 2022). Therefore, enhancing the emotional engagement of online students is crucial.

On the other hand, it is often hard to detect the emotional engagement of online students, particularly for adult learners who may intentionally mask their real emotions (Boehner et al., 2007). In this study, we will share how we use a facial expression analysis tool to automatically monitor the emotional expressions of online students. The tool will also notify the instructor when the emotional expression of a student remains negative for a while. Solely detecting students' emotional engagement is meaningless. Identifying what learning experiences cause positive or negative emotional engagement is more important. In this study, we will also share what learning experiences have high potential to emotionally engage online students.

**14:10-14:35**

**83965 | *The Use of Pecha-Kucha as a Presentation Tool in a Blended Learning Course***

Nino Naldoza, Philippine Normal University, Philippines

Emerging media tools provides an opportunity to enrich classroom blended learning experiences. Hence, this study described and evaluated the use of Pecha-Kucha as a presentation tool in a graduate school course implemented through blended learning modality. Using descriptive qualitative study, semi-structured interviews and media analysis were initiated from the purposive sample of 8 Pecha-Kucha outputs of graduate school students and select Educational Technology experts. The thematic analysis revealed that the graduate students exhibited confidence, ease of concept organization and enhanced visual and technical skills in preparing the Pecha-Kucha output. It also revealed that the outputs provided concise elements on the presentation of content, enhanced presentation of a multimedia and easy to communicate with the target audience. The outputs also exhibited good multimedia quality in terms of aesthetic, relevance and appropriate use of media elements. In conclusion, the Pecha-Kucha presentation outputs achieve a good production quality and instructional relevance in a blended learning environment. Implications and recommendations were also discussed.

12:55-14:35 | Room 604 (6F)

# Wednesday Onsite Parallel Session 3

## Language Development & Literacy

### Session Chair: Nermin Vehabovic

12:55-13:20

85444 | *An Integration of Audiobooks and Microsoft AI Dictation in the Teaching and Learning of English Pronunciation*

Suhaila Hani Zaidin, University Malaya, Malaysia

Shazlin Niza Ab Razak, University Malaya, Malaysia

Rabiatul Adawiyah Abdullah, University Malaya, Malaysia

This study investigates the effectiveness of integrating audiobooks and Microsoft Dictation software in enhancing pronunciation skills among pre-university students. Previous research underscores the importance of prosody and suprasegmental phenomena, such as lexical stress, intonation, and vowel reduction, in acquiring native-like speaking skills. Additionally, audiobooks have been shown to improve reading fluency, comprehension, and overall language acquisition, benefiting listening comprehension, pronunciation, and learner motivation. The methodology involved a sample of 50 pre-university students divided into two groups: 25 students were exposed solely to audiobooks, while the remaining 25 were exposed to both audiobooks and Microsoft Dictation for two weeks. Both groups were given a set of commonly mispronounced words, and the percentage of correct pronunciations was calculated. Statistical comparison using the t-test revealed a significant difference between the groups. The results showed a 30% increase in the number of words correctly pronounced by students exposed to both audiobooks and Microsoft Dictation. Additionally, more than 90% of the students reported that the learning approach increased their interest in learning English. This study demonstrates that a combination of audiobooks and Microsoft Dictation is an effective approach to teaching and learning English pronunciation, helping students improve their communication skills and confidence in using English as a global language. The findings contribute to existing literature on pronunciation teaching and learning and can inform future research and practice in this area, addressing both national and global concerns about effective language education.

13:20-13:45

85966 | *Developing Reading Skills through Multilingualism, Multimodality, Creativity, and Technology*

Andrea Perales Fernandez de Gamboa, University of the Basque Country (UPV/EHU), Spain

Paloma Rodríguez-Miñambres, University of the Basque Country (UPV/EHU), Spain

Izaskun Molás-Olalde, University of the Basque Country (UPV/EHU), Spain

Reading literacy is one of the main concerns of the educational community, since it is an essential element in the integral development of individuals and in the current educational system. The Basque Autonomous Community's lowest PISA score since 2003 prompted the Department of Education to reassess linguistic strategies regarding the literacy processes of students. Recognizing the benefits of multilingual pedagogies, the government prioritized improving students' communicative skills, focusing on Basque as a core language. To do so, they launched a pilot PYCTO methodology project in primary schools aimed to enhance reading and writing proficiency in Basque, Spanish, and English. The main objective of this paper is to explore whether a multimodal and multilingual methodology that has creativity as one of its basic principles could favor to a greater extent the development of reading comprehension of 2nd (ages 7-8) and 3rd (ages 8-9) grade primary education students in the three curricular languages in the Basque Autonomous Community (Basque, Spanish and English). For this purpose, we analyzed the development of reading comprehension in students (N=335), focusing on a) syntactic processes related to grammatical structures, b) semantic processes related to the comprehension of sentences, and c) semantic processes related to the comprehension of texts. The results obtained show that multilingual students achieve a higher reading performance when they learn using a multimodal and multilingual methodology that incorporates creativity in the language learning process. Therefore, we discuss some of the pedagogical implications derived from this study.

13:45-14:10

88690 | *Traversing Languages and Literacies: Fostering Care, Dignity, and Healing Across University-Community Initiatives Serving Children, Youth, and Families from Refugee Backgrounds*

Nermin Vehabovic, Elon University, United States

This presentation illuminates a collaboration between the School of Education at a private medium-sized university in the United States and community partners who resettle and support people with refugee backgrounds in the local community. The collaboration includes initiatives that connect undergraduate Teacher Candidates with translingual children, youth, and their families in their homes. Our mission – learning with and from – emphasizes the importance of deeply caring for the children, youth, and families we serve, as well as their communities (i.e., critical love; Sealey-Ruiz, 2019). Based on two years of ethnographic data collection—including fieldwork, written and digital reflections, recorded shared reading sessions, and impromptu interviews—the findings show that fostering relationships of care and dignity enables these partnerships to acknowledge and respect the diverse language and literacy practices in culturally and linguistically diverse communities. Teacher candidates were able to acknowledge and honor the broad range of languages and literacies that occur in homes and across communities. Specifically, reading and writing emerged as historically responsive literacies (Muhammad, 2020; 2023) among Teacher Candidates and translingual children, youth, and families from refugee backgrounds, engaging them in ways that fostered identity, skill development, criticality, intellectual growth, and joy. Therefore, this presentation relates to the field of education by highlighting how culturally and historically responsive approaches can enhance teacher preparation and support equitable language and literacy development in culturally and linguistically diverse educational settings and communities.



12:55-14:35 | Room 605 (6F)

## Wednesday Onsite Parallel Session 3

Interdisciplinary, Multidisciplinary & Transdisciplinary Education

Session Chair: Gloria Martínez

12:55-13:20

88287 | *Sci@home: An Interdisciplinary Hybrid Community Engagement Model for Informal STEM Learning*

Jane Yap, Ministry of Education, Singapore

Seok Mun Pang, Ministry of Education, Singapore

The sci@home project was initiated by undergraduate students from the National University of Singapore (NUS) in 2020 during COVID-19 as an innovative response to the restriction placed on conducting physical science workshops for students. Student facilitators in the NUS Young Educators in Science Programme were trained to deliver online science workshops, providing an accessible and affordable virtual platform focused on kinaesthetic learning to underprivileged children through community partners. Over 4 years, the project successfully produced seven different portable science kits, distributing over 2,000 kits to more than 700 children across 25 community partners and schools. Today, these kits still remain relevant in both physical and online workshops, reflecting their versatility in engaging a broader range of learners beyond the initial target group. The project's impact was further enhanced through collaboration with Singapore's Ministry of Education's Curriculum Planning & Development Division, resulting in the transformation of a sci@home kit into an e-learning package for secondary school students with STEM-related concepts. The project's impact was further enhanced through the transformation of a sci@home kit into a STEM lesson package on an online learning platform for secondary school students. The project also expanded its influence by mentoring undergraduate and secondary school students, guiding them in the development of new science kits and workshops. Looking ahead, sci@home aspires to continue promoting interdisciplinary STEM learning, fostering innovation and deeper engagement among young learners.

13:20-13:45

84606 | *Effect of Developing Multimedia for Three Phase Induction Motor Rewinding Using ADDIE Model*

Pakpoom Chansri, King Mongkut's University of Technology Thonburi, Thailand

Chamnan Ratsamee, King Mongkut's University of Technology Thonburi, Thailand

Pattarapon Pooyodying, Rajamangala University of Technology Rattanakosin, Thailand

Nattharak ReangRuk, King Mongkut's University of Technology Thonburi, Thailand

Motor rewinding skills are one of the practical skills of an electrician. Generally, it will be organized as a course at the vocational certificate level, emphasizing practical training in disassembly and reassembly motors, form coils of copper wire and electrical circuit connections. Over the course of the last few years, the pandemic of Covid-19 has led to a decline in learning capabilities and a decrease in proficiency in practice. Utilizing media technology in the classroom facilitates practice by letting students' study and work through material independently. As a result, the Addie model is used in the research to create multimedia materials for motor winding. The results of the study found that: 1) Develop multimedia to enhance skills in three-phase induction motors according to the ADDIE Model concept. The multimedia was examined by three experts, and 2) results of finding the quality of developing multimedia to create skills in three-phase induction motors according to the ADDIE model. Regarding the appropriateness of the contents of disassembling a three-phase induction motor, the experts had a high overall opinion ( $= 4.11$ ,  $SD=0.93$ ). Developing academic achievement from the content of the structure of a three-phase induction motor, the experts had a high level of overall thinking ( $= 4.5$ ,  $SD=0.56$ ). The development of multimedia media to increase learning skills regarding three-phase induction motors according to the ADDIE Model can be used as teaching media and can also allow students to study outside of class time appropriately, which will affect their learner development according to the ADDIE Model.

13:45-14:10

83655 | *A Jigsaw-Based Pedagogy to Promote Interdisciplinary Learning in Health Sciences Education*

Ivan Cherh Chiet Low, National University of Singapore, Singapore

Amanda Wong, National University of Singapore, Singapore

Swapna Haresh Teckwani, National University of Singapore, Singapore

Lily Rozana Joeheann Aung, National University of Singapore, Singapore

The changing global healthcare landscape necessitates a workforce skilled in interdisciplinary approaches to address evolving health challenges. To meet this need, NUS School of Medicine introduced a new Minor Program in Integrative Health to promote interdisciplinary learning among students from diverse non-healthcare disciplines. The program employs a webbed curriculum framework where multidisciplinary lectures converge around central health themes, complemented by small-group tutorials employing both traditional and jigsaw pedagogical methods. The jigsaw method groups students by their disciplines to identify health issues, then reassigns them into mixed-discipline groups to develop interdisciplinary solutions. Employing a mixed-methods design, this study compares the effectiveness of jigsaw and conventional methods in enhancing interdisciplinary learning outcomes through (1) Interdisciplinary Understanding Questionnaire (IUQ), (2) scoring of tutorial assignments with rubrics framed by the SOLO taxonomy, and (3) semi-structured interviews. Of the 20 students enrolled in the program's inaugural course, 18 participated in the study. Quantitative analysis revealed that the jigsaw pedagogy, when compared with conventional methods, enhanced knowledge of interdisciplinary and collaborative skills. This was supported by improved scores in multi- and interdisciplinary (but not transdisciplinary) assignment domains, as well as the commons themes identified from the semi-structured interviews. Our approach contrasts traditional learning models by engaging students in a jigsaw-based tutorial system, which facilitates initial discipline-specific mastery followed by interdisciplinary collaboration. This study contributes to the sparse empirical evidence on effective interdisciplinary education strategies, offering insights that could inform future curriculum developments aimed at preparing students for the complexities of modern healthcare challenges.

14:10-14:35

87285 | *Analyzing Gender-Based Perceptions of Corruption and Equity Among Engineering Students: Insights from a Multidisciplinary Data Mining Approach*

Gloria Martínez, Instituto Politécnico Nacional, Mexico

Nashielly Yarzabal, Instituto Politécnico Nacional, Mexico

Juan Sabas, Universidad Rosario Castellanos, Mexico

In this study, we explored the differing perceptions of equity and corruption values between women and men through data mining analysis. Utilizing an extensive database of surveys, we applied advanced data mining techniques to identify significant patterns and differences in the perception of these values across genders. The results were derived from a survey initially designed as a result of a multidisciplinary and socially complex analysis, targeting engineering students at the National Polytechnic Institute in Mexico. The survey measured perceptions of corruption in educational institutions, businesses, the general public, as well as in public and private educational institutions. It was found that men perceived these entities as more corrupt. According to the results, women tend to have a more critical perception of acts of corruption and place a higher value on principles of equity. Additionally, students were asked why they were pursuing their careers, and the majority responded that it was to earn more money. These findings not only provide a deeper understanding of how men and women perceive equity and corruption but also inform the development of educational strategies and public policies. This study underscores the importance of considering gender in the study of social values and highlights its relevance for designing policies that effectively promote equity and combat corruption.

12:55-14:35 | Room 607 (6F)

# Wednesday Onsite Parallel Session 3

## The Teaching of STEM

### Session Chair: Nashielly Yarzabal Coronel

12:55-13:20

81453 | *International Projects: Tracing the Journey from Design to Community Use*

Inês Araújo, Polytechnic University of Tomar, Portugal

Célio Marques, Polytechnic University of Tomar, Portugal

Hélder Pestana, Polytechnic University of Tomar, Portugal

A group of institutions from Lithuania, Slovenia, Greece and Portugal developed a project over two years with the aim of engaging girls aged 14-16 in STEM subjects. Empower Girls Creativity Through Use of Digital Technologies (SparkDigiGirls) is an ERASMUS+ project that culminated in the creation of an online course. This course consists of 16 challenges spread over different types of technologies (Augmented Reality, Virtual Reality, Artificial Intelligence, Internet of Things, Robotics, Online Security). Students are challenged to learn about the technology, apply it to real everyday situations or needs, and provide evidence. This course has been converted into a MOOC and integrated into the Chair4Future platform, which has been specifically designed to disseminate knowledge to students and teachers at IPT, partner institutions and the wider community. This platform was created as part of a national project: STRONG - Resilient Skills and Teachers focused on the Next Generations. The aim was to identify the main skills that are lacking and to create initiatives that can develop them. In this paper we present the initiatives related to the dissemination of the results of the SparkDigiGirls project. The MOOC is described and the results of the user satisfaction evaluation are presented, as well as information about the girls who have taken up STEM-related courses as a result of participating in the project. Regarding the MOOC, support modules for tutors have been added so that anyone interested can be prepared to run it with a group of young people.

13:20-13:45

85357 | *Computational Thinking in Agricultural STEM-Based Project: A Case Study on the Impact of the Magnetcode Application Among Zambian Educators*

Sanura Jaya, SEAMEO RECSAM, Malaysia

Cornelius Phiri, Malcolm Moffat College of Education, Zambia

Parvinder Singh Amar Singh, SEAMEO RECSAM, Malaysia

Azman Jusoh, SEAMEO RECSAM, Malaysia

In the rapidly evolving landscape of education, the integration of computational thinking (CT) into STEM (Science, Technology, Engineering, and Mathematics) curricula has emerged as a pivotal strategy for enhancing educators in teaching and learning and preparing future generations for the demands of the 21st-century workforce. This study investigates the impact of the Magnetcode application on enhancing computational thinking (CT) skills among educators in Zambia. Open-ended interview, pre-test and post-test designs were employed to measure the impact and the effectiveness of computational thinking in agricultural STEM-based projects to Zambian educators in terms of knowledge and understanding of CT elements, basic design coding, circuit simulation, and the application of Magnetcode Microcontroller in STEM project. The results demonstrated significant improvements in all assessed areas. The percentage improvement ranges from 1.31% to 2.5%, with the highest improvement observed in the application of the Magnetcode microcontroller. The mean for the pre-test was significantly different from the test value of 0, with a mean difference of 27.69 and a 95% confidence interval of 25.39 to 29.99, supported by a t-value of 25.66 ( $p < .001$ ). Integrating computational thinking and coding into STEM educational curricula can enhance teachers' understanding and skills in implementing STEM education in Zambia.

13:45-14:10

87745 | *Cultivating Intuition for Mathematical Modelling in an Interdisciplinary STEM Lesson: A Case Study in Singapore*

Kim Yong Lim, National University of Singapore, Singapore

Mei Ting Ng, National University of Singapore, Singapore

This study presents the rationale behind and execution of an interdisciplinary STEM lesson on mathematical modelling for secondary and pre-tertiary students in Singapore. The lesson employs relatable contexts such as a zombie apocalypse to foster understanding of concepts in infectious diseases. Instead of directly introducing differential equations, which are typically employed in such models, an alternative computational thinking approach is utilized. A key objective is the acquiring of the mathematical reasoning behind the susceptible-infected-recovered (SIR) model for infectious disease spread. In addition, this approach is also accessible to students unacquainted with calculus, without compromising the rigor and accuracy of the model. Aligned with Singapore's strategic focus on educational technology in the education system, the lesson supports students in developing foundational data competencies and computational thinking skills with the use of spreadsheet software. These readily available digital tools facilitate the automation of calculations and modelling of disease spread. Predicted outcomes by the model can be compared with real-world data e.g. COVID-19 infection numbers. This enables students to see how mathematics and biology intersect, fostering a better appreciation of the interdisciplinary nature of real-world problems.

14:10-14:35

88238 | *Humanizing Ourselves with STEAM +H Technology*

Nashielly Yarzabal Coronel, National Polytechnic Institute IPN, Mexico

Gloria Judith Martínez Bejarano, Instituto Politécnico Nacional, Mexico

Laura Elina Agorreca, Universidad Nacional de Las Artes de Buenos Aires Argentina, Argentina

During a global, environmental, social and economic crisis, the dizzying technological advance gave rise to the development of Industry 4.0 with its high demands, and Education 4.0, designing innovative forms of learning to achieve the comprehensive training of students. to promote global well-being and a sustainable world. Observing the need to return to the Human, STEAM+H (S: Science, T: Technology, E: Engineering, A: Arts and M: Mathematics + H: Humanities) experiences are proposed. Methodology: the STEAM-PBL (PBL: Project Based Learning) Methodology was applied, which is an ideal combination for the creation of sustainable solutions through transdiscipline and the order of PBL, as well as the application of the scientific method. Results: STEAM+H with the STEAM-ABP methodology represents a great opportunity to build knowledge, develop sustainable and humane integrative solutions; in addition to the development of digital, procedural, socio-emotional and artistic skills in the development of integrative solutions. Discussion: STEAM+H is a very beneficial activity academically, as well as to generate solutions for educational experiences, however, it requires extra preparation for teachers in pedagogical issues, sustainability, technology, and disciplines of Humanities and Social Sciences. Conclusion: The design and execution of STEAM+H projects with the STEAM-ABP Methodology encourages the formation of well-rounded individuals with critical thinking, who are more human and sensitive, as well as future professionals with the awareness of working for a sustainable world in well-being, with respect for themselves, for the world focused on a collective common good.

12:55-14:35 | Room 608 (6F)

# Wednesday Onsite Parallel Session 3

## Higher Education

### Session Chair: Gino Galvez

12:55-13:20

85108 | *From Efficiency Prioritization to Value Return: The Transformation Path of Teaching Evaluation System for College Teachers*  
Xiongjie Mei, Xiamen University, China  
Guojun Ji, Xiamen University, China

Exploring the construction of a teaching evaluation system for college teachers with Chinese characteristics is not only an urgent requirement for empowering the high-quality development of higher education, but also the key to promoting the transformation of college teachers' competence and quality in the new era. From the perspective of sociological institutionalism, China's university teacher teaching evaluation system can be divided into three basic modes: performance-oriented, value-oriented and efficient governance. At present, the reliance on the efficiency mechanism reflects the multiple contradictions such as the lack of subject, misplaced goals and suspension of the spirit of the separation of name and reality. The main causes are the regulatory proliferation of hierarchical organizational structure, the imitative homogeneity caused by the ambiguity of quality standards, and the cultural-cognitive limitation caused by the dependence on career paths. In this context, actively constructing a triadic governance structure with the government, universities and the market as the core, promoting a dual-track evaluation model that parallels humanized and contractualized management, and enhancing a quality culture with the value of teachers' role identity have become the paths of choice for the transformation of the teaching evaluation system of university teachers.

13:20-13:45

82480 | *Higher Order Thinking Skills (HOTS) of Elementary School Teacher Education Students In Indonesia: A Systematic Literature Review*  
Iyoh Maspiroh, Yogyakarta State University, Indonesia  
Zuhdan Kun Prasetyo, Yogyakarta State University, Indonesia  
Hermanto Hermanto, Yogyakarta State University, Indonesia

As prospective teachers, HOTS among elementary school teacher education students is very important to be developed and implemented. Teaching and learning problems require HOTS to solve them. This literature review aims to determine the profile of HOTS among elementary school teacher education students in Indonesia and the efforts that have been made by academics to optimize students' HOTS. The method used in this study is the Preferred Reporting Item for Systematic Reviews and Meta-Analyses (PRISMA). The writers conducted an extensive review of 997 articles obtained from the Google Scholar database using Harzing's Publish and Perish on the HOTS proficiency profile of primary school teacher education students in Indonesia published in the period 2017–2023. This research was conducted in five stages: 1) determining eligibility criteria; 2) determining information sources; 3) study selection; 4) data collection; and 5) data item selection. The result shows that 77% of articles describing the HOTS of elementary school teacher education students were in the low category and 22% of articles were in the good or optimal category. Efforts have been made by academics to improve the HOTS of elementary school teacher education students by developing HOTS-oriented learning strategies. This study highlights the importance of improving the HOTS of prospective elementary school teachers and suggests the use of a more comprehensive lecture program to bridge the gap between the skills possessed by prospective elementary school teachers and the skills required by a teacher in the 21st century.

13:45-14:10

86850 | *Navigating Parallel Research Paradigms in Kazakhstani Doctoral Programs*  
Askat Tleuov, Kimep University, Kazakhstan  
Kairat Moldashev, Suleyman Demirel University, Kazakhstan

This study explores the coexistence of parallel research paradigms within doctoral training programs in social sciences and humanities at Kazakhstani universities. The research investigates the traditionalist paradigm, rooted in Soviet-era legacies, and the internationalist paradigm, which aligns with global academic standards. The study aims to identify evidence supporting these paradigms' existence, examine their manifestations throughout the doctoral journey, explore their distinguishing characteristics, and investigate strategies used by doctoral students to navigate conflicting expectations. The qualitative methodology involved in-depth interviews with 10 recent PhD graduates and analysis of their dissertations and defense documents. Preliminary findings confirm the presence of parallel paradigms, with the traditionalist approach potentially hindering global integration while the internationalist paradigm faces resistance from established institutional norms. The requirement to publish in international journals further complicates this landscape, necessitating hybrid dissertations that integrate elements from both paradigms. Understanding these dynamics is crucial for developing strategies to promote a more integrated and effective research environment in Kazakhstani academia. The study's implications extend to enhancing collaboration, knowledge exchange, and innovation within the academic community. Future research will involve interviews with dissertation council members to gain deeper insights into paradigm dynamics. This research contributes to advancing knowledge about research paradigm dynamics and informs best practices for creating inclusive research environments globally.

14:10-14:35

88598 | *Fostering the Development of Research-Related Skills, Academic Outcomes, and Postbaccalaureate Interest Among Diverse Participants of a Summer Research Program*  
Gino Galvez, California State University, United States

This study evaluates the effectiveness of a summer research program in enhancing research-related skills, academic outcomes, and postbaccalaureate aspirations of diverse (e.g., ethnicity, SES, first generation education status) undergraduate students in the Science, Technology, Engineering and Math (STEM) fields. The program, spanning 9 weeks, provides immersive research experiences, structured mentorship, trainings, seminars, and STEM education. Pre- and post-program survey data from eight cohorts (N=315) of participants were analyzed using paired-sample t-tests, MANOVA, and content analysis. Results demonstrate significant gains in critical thinking skills, research abilities, science identity, applied science skills, and readiness for a research career. Notably, participants exhibited improvements in understanding the research process, scientific thinking, science writing, and problem-solving. The program also positively influenced students' postgraduate aspirations. Some participants expressed heightened interest in pursuing Master of Arts, Ph.D., and M.D. degrees, indicating increased clarity and motivation towards advanced education and research careers. Furthermore, 87% of participants expressed a high likelihood of engaging in future research endeavors, underscoring the program's sustained impact on research interest. This study underscores the transformative potential of a well-structured, intensive summer research program in significantly enhancing academic outcomes for students. These findings align with the persistence framework, emphasizing the importance of early research experiences, active learning, and learning communities in fostering student success. The program's effectiveness in improving research skills and post-baccalaureate aspirations suggests its potential in diversifying the STEM fields.



12:55-14:35 | Room 703 (7F)

# Wednesday Onsite Parallel Session 3

## Foreign Languages Education & Applied Linguistics

### Session Chair: Pakinam Shiha

12:55-13:20

88373 | *Navigating Challenges and Strategies: Malaysian ESL Secondary School Teachers in Differentiated Reading Instruction*

Aimi Liana Ahmad, University Malaya, Malaysia

Shanina Sharatol Ahmad Shah, University Malaya, Malaysia

This concept paper is about differentiated instruction in Malaysian ESL reading classrooms. The Malaysian Education Blueprint emphasizes equality in education for all students. The policy calls for the abolition of classroom streaming, and students are placed in classes regardless of their academic performance. As a result, students in a classroom have varying levels of proficiency, and Tomlinson's (1999) differentiated instruction (DI) appears to be a way to meet the students' diversity. Despite the positive impacts of DI on language learning, teachers are still facing challenges in implementing DI in their classrooms. Therefore, this study aims to investigate the challenges and strategies employed by Malaysian English as a Second Language (ESL) secondary school teachers in implementing differentiated reading instruction and their perspectives on the impact of DI on students' reading skills. This study will adopt a qualitative research design and select 5 Malaysian ESL public secondary school teachers with experience teaching students with varying proficiency levels. For data collection, the study will conduct semi-structured interviews, classroom observations, and documents such as students' examination results and teachers' lesson plans. Overall, this qualitative case study aims to provide in-depth insights into the challenges and strategies employed by Malaysian ESL secondary school teachers in implementing differentiated reading instruction, ultimately informing the development of effective instructional strategies to support diverse student needs.

13:20-13:45

88612 | *Analyzing the Effect of Restricting M-Reader to In-Class Usage Only*

Joel Weinberg, Meiji University, Japan

Extensive reading means reading a large number of books that are below one's linguistic ability. To demonstrate their completion and comprehension of extensive reading books, students might also be required to answer internet-based post-reading quizzes. This research initially began as a result of students' concerns about their classmates' illicit conduct when taking post-reading quizzes for extensive reading. While working to receive credit for their assignment on the extensive reading quiz website M-Reader.org, some students used a variety of unethical behavior to pass post-reading quizzes without actually reading the books. The activities allegedly included taking quizzes for each other, taking quizzes simultaneously with a classmate, and using the internet to search for answers. If this behavior was allowed to continue unabated, it would have delegitimated the purpose of using quizzes to assess students' completion rate of extensive reading. In response to this behavior, access to the M-Reader quiz website, which was previously accessible at all times, was restricted to in-class-use only. This research first considers the anonymous suggestions to remedy this problem submitted via Google Forms by 23 intermediate level students of Dokkyo University in Saitama, Japan. Then this research looks at the effect that restricting access to the quiz website had on the students' quiz passing rates by comparing them to the performance of classes before the change went into effect.

13:45-14:10

88362 | *Toponyms in Chinese as a Foreign Language Textbooks: A Comparative Study of Three Representative Textbooks Series from a Translation Perspective*

Zhou Yin, University of Putra Malaysia, Malaysia

Wong Ling Yann, University of Putra Malaysia, Malaysia

Hazlina binti Abdul Halim, University of Putra Malaysia, Malaysia

As key elements in Chinese as a Foreign Language (CFL) textbooks, toponyms not only reflect geographic information across time and space but also carry rich historical and cultural connotations in learning Chinese communication. However, current research on CFL teaching curriculum lacks systematic studies on the translation of toponyms in textbooks to teach foreigners recognizing Chinese toponyms. This study, grounded in Peter Newmark's theory of semantic and communicative translation, conducts a comparative analysis of toponyms and their translation strategies in three representative CFL textbooks series: Developing Chinese, Hanyu Jiaocheng, and HSK Standard Course. The corpus encompasses 22 textbooks spanning elementary, intermediate, and advanced Chinese proficiency levels. The findings reveal that: (1) The frequency and distribution of toponyms in the three textbooks show significant heterogeneity, with Developing Chinese exhibiting the highest density of place names, reflecting it emphasizes on cultural introduction to toponym; (2) The textbooks employ diverse strategies for translating place names, including phonetic translation, semantic translation, a combination of phonetic and semantic methods, and annotation technique. However, there are differences in strategy preferences across the textbooks, indicating the editors' varying considerations of the cognitive needs of the target readers; and (3) The accuracy and cultural resonance of place name translations are positively correlated with the textbooks' instructional objectives and the language proficiency level of the target audience. By systematically analyzing toponyms and its translation in CFL textbooks, this study provides valuable insights for CFL instruction and textbook development, while also contributing to the broader discourse on cultural transmission in learning.

14:10-14:35

81717 | *Arab EFL Learners' Collocational Competence: Errors, Challenges and Teaching Implications*

Pakinam Shiha, Effat University, Saudi Arabia

Nadine Lacsina, Al-Yamamah University, Saudi Arabia

The study explores the collocational competence of Arab foundation program students. Collocational competence of ESL learners is important in achieving native-like proficiency level, which is one of the objectives of foundation programs. In this study, 38 foundation learners were given a 60-item collocation test to identify their current collocational competence and identify specific collocational errors and patterns that are unique to Arab students. The test consisted of verb-noun and adjective-noun structures. The study reveals that learners were more aware of verb-noun combinations and had difficulties providing the collocates for adjective-noun combinations. In fact, there was a significant difference between the scores of students in the verb-noun and adjective-noun structures. Furthermore, the challenges that students encountered when using collocations were mainly on the effects of their L1 based on their choice of collocates. For instance, most answers were strongly linked to students' failure to distinguish between synonyms that were not present in their L1. Non-exposure to certain collocations and degree of L1-L2 differences were also noted through the surveys administered. Interviews with instructors also provided support on students' overall performance in the test. Emphasis on students' exposure to collocations and poor English proficiency levels on top of the L1 and L2 differences emerged from the thematic analysis of the interview. All in all, the findings of this study can provide further insights to language pedagogy—specifically strategies to help students learn collocations more effectively.

12:55-14:35 | Room 704 (7F)

## Wednesday Onsite Parallel Session 3

Primary & Secondary Education

Session Chair: Catherine Malboeuf-Hurtubise

12:55-13:20

85379 | *Development and Validation of Mathematical Proficiency Inventory Scale: An Exploratory Sequential Mixed Method Approach*

Mary Cris Go, Northern Bukidnon State College, Philippines

Laila Lomibao, University of Science and Technology of Southern Philippines, Philippines

This study aimed to develop and validate a comprehensive measurement scale, the Mathematical Proficiency Inventory Scale (MPIS), for assessing mathematical proficiency, attitudes, and behaviors among learners. Through exploratory factor analysis (EFA), three (3) components were examined: The Mathematical Proficiency Rating Scale (MPRS), the Productive Disposition Survey Scale (PDSS), and the Mathematical Proficiency Test (MPT). For the MPRS, EFA revealed three (3) distinct factors: Adaptive Reasoning, Conceptual Understanding, and Procedural Fluency, with high sampling adequacy ( $KMO = 0.971$ ) and explained variance of 76.074%. Reliability analysis indicated excellent internal consistency, with Cronbach's alpha values exceeding  $\alpha = 0.90$  for all dimensions and an overall reliability of  $\alpha = 0.972$ . Similarly, the PDSS identified four (4) factors: Persistence and Motivation, Real-life Application of Mathematics, Effort and Perseverance, and Time Management in Mathematics, with a KMO value of 0.957 and explained variance of 49.291%. The PDSS demonstrated good internal consistency, with Cronbach's alpha values exceeding  $\alpha = 0.70$  for all dimensions and an overall reliability of  $\alpha = 0.840$ . Additionally, the development process of the MPT, demonstrated high reliability across all grades ( $\alpha > 0.70$ ) ensured alignment with educational standards and effective assessment of learners' mathematical abilities. The MPT represented a comprehensive and reliable tool for evaluating mathematical proficiency, with high ratings affirming its effectiveness across grades 5, 6, and 7. These findings underscore the importance of fostering adaptive reasoning, conceptual understanding, productive disposition, and problem-solving skills in mathematics education.

13:20-13:45

85532 | *Enhancing Students' Creative Traits in Chemistry Learning: A Study on Problem Based Learning vs. Scientific Problem Based Creativity Learning*

Wimbi Apriwanda Nursiwan, University Technology Malaysia, Malaysia

Chuzairy Hanri, University Technology Malaysia, Malaysia

Nor Hasniza Ibrahim, University Technology Malaysia, Malaysia

21-century education has evolved for over 20 years, yet the enhancement of student creativity still needs to be improved to create high-quality students. This study aims to analyze the effectiveness of Problem Based Learning (PBL) and Scientific Problem Based Creativity Learning (SPBCL) in enhancing students' creative traits. This study employed a quasi-experimental method with a pre-test and post-test research design to measure the increase in student creativity. The research subjects were 11th-grade high school students in Mandau, Indonesia. Data was collected using a chemistry creativity test and analyzed using descriptive and inferential analysis (Wilcoxon and Mann-Whitney) and triangulated with qualitative result data (interview). The results of the study show that both learning approaches significantly enhance student creativity. The comparison of these two learning models indicates that Scientific Problem Based Creativity Learning is more effective in enhancing creative traits compared to Problem Based Learning, with Asymp. Sig. (2-tailed) =  $< 0.001$  (Z score = -4.129). The enhancement in creative traits is evident in the improved scores of creativity tests, encompassing aspects such as fluency, flexibility, and originality. The implications of this study suggest that integrating the creative process into Problem Based Learning, named Scientific Problem Based Creativity Learning, is more effective in enhancing creative traits. Thus, this learning approach can become an effective strategy for improving student creativity in educational environments, especially chemistry learning.

13:45-14:10

85247 | *Integrating Humanistic Perspectives in STEM Education: Insights from Scientist-Teacher-Student Partnerships*

Hidayah Mohd Fadzil, Universiti Malaya, Malaysia

Humanizing STEM (Science, Technology, Engineering, and Mathematics) is an approach that seeks to integrate humanistic perspectives and values into these traditionally technical fields. Bringing a humanistic perspective to STEM encourages greater diversity and inclusion in the field and a more holistic and integrated approach to problem-solving. STSP involves mutual understanding via a partnership where scientists and teachers can learn from one another. This qualitative study explores the conceptualization of humanizing STEM education from the perspectives of scientists, social scientists, and secondary school teachers. It involves six teachers from two secondary schools, three scientists, and three social scientists from humanities backgrounds from two local universities. Three key themes emerged, i.e., integrative collaboration and mutual learning, holistic and contextualized learning, and ethical and social responsibility. These themes collectively highlight the value of integrating humanistic perspectives into STEM education to create a more inclusive, relevant, and socially responsible approach to teaching and learning in science.

14:10-14:35

87297 | *Fostering Empathy and Relatedness in Children Through Engaging in Artistic Creation and Philosophical Inquiry in Schools*

Catherine Malboeuf-Hurtubise, Bishop's University, Canada

Terra Léger-Goodes, Université du Québec à Montréal, Canada

Catherine Herba, Université du Québec à Montréal, Canada

Jonathan Smith, Université de Sherbrooke, Canada

Engaging in artistic creation and philosophical discussions with youth has been shown to facilitate and encourage expression and awareness of emotions (Waller, 2006). When conducted in school settings, they promote awareness and self-understanding in children, which fosters better emotional and social adjustment (Freilich & Shechtman, 2010; Lefrançois, 2006; Vansieleghe, 2014). Similarly, decades of research in self-determination theory have shown that the satisfaction of the basic psychological needs for self-determination, competence and relatedness is positively associated with wellbeing and mental health (Deci & Ryan, 2000). Engaging in artistic creation and philosophical discussions with children can increase their satisfaction of these needs (Malboeuf-Hurtubise et al., 2021a, b; Léger-Goodes et al., 2023). Autonomy and relatedness, in turn, have been linked with the development of empathy (Pavey et al., 2012), which can be defined as sharing the concern for other people's lived experience and distress (Dovidio et al., 2006). In this presentation, we will share results from two qualitative studies conducted in school settings ( $N=40$ ; mean age 11 years-old), in which artistic and philosophical activities were implemented. Through thematic analysis originating from semi-structured interviews and a group discussion on the topic of love, we will explore links between the satisfaction of autonomy and relatedness and the development of empathy in children.

12:55-14:35 | Room 705 (7F)

# Wednesday Onsite Parallel Session 3

## Professional Training, Development & Concerns in Education

### Session Chair: Tara Nkrumah

12:55-13:20

88406 | *Computer-Supported STEAM Teacher Professional Development for SDGs Lesson Design*

Chih-Hsuan Chang, National Chengchi University, Taiwan

Chih Hui Seet, National Chengchi University, Taiwan

Cing-Sin Lin, National Chengchi University, Taiwan

Mei-Ju Chen, National Tsing Hua University, Taiwan

Guo-Tsai Hung, National Taichung University of Science and Technology, Taiwan

Hung-Yao Hong, National Chengchi University, Taiwan

This study investigates the effectiveness of a Knowledge Building Teacher Professional Development (KB-TPD) program in enhancing K-12 teachers' design thinking (DT) mindset and alignment with Knowledge Building (KB) principles. The 10-week online course, conducted with 49 K-12 teachers from Taiwan and the United States, aimed to deepen participants' understanding of KB principles and lesson design practices. Data collection included online activity logs from the Knowledge Forum (KF), pre- and post-course DT mindset surveys, and evaluations of lesson design outcomes using rubrics based on the 12 KB principles. Descriptive statistics analyzed participants' online behaviors, while paired sample t-tests, independent samples t-tests, and correlation analyses assessed changes in DT mindset, compared KB lesson plans with benchmark plans, and explored relationships between KF activities and lesson plan scores. Results reveal significant engagement on the KF platform, with reading being the most common activity, followed by modifying and creating content. Teachers' DT mindset improved significantly across all dimensions, particularly in holistic thinking and creative confidence. KB lesson plans generally outperformed benchmark plans in most principles, especially in idea diversity and epistemic agency. However, in principles such as pervasive knowledge building, both KB and benchmark groups performed at similarly high levels. Further analysis showed that overall KF engagement, especially in reading and modifying content, positively correlated with higher lesson plan scores. This study contributes to understanding professional development's role in fostering KB and DT skills among educators, with suggestions for enhancing engagement strategies and building upon areas where both KB and benchmark groups excelled.

13:20-13:45

85451 | *Effectiveness of a Model to Scaffold Critical Reflection in Peer Observation of Teaching (POT)*

Phuc Le, RMIT Vietnam University, Vietnam

Karen Benson, RMIT Vietnam University, Vietnam

Hanh My Thi Nguyen, RMIT Vietnam University, Vietnam

Reflective practice in Peer Observation of Teaching (POT) fosters active, lifelong, and deeper learning, and when conducted critically, it can transform teaching conceptions and practices. However, limited guidance exists on effectively scaffolding and stimulating critical reflection in POT programs. Additionally, reflection often occurs post-hoc (after the post-observation meeting) limiting its effectiveness. Initiating reflection earlier, when the observation focus is set, would ensure that reflection and subsequent learning address critical issues teachers face. To bridge these gaps, the Learning and Teaching Unit at an Australian university in Southeast Asia developed a model to scaffold critical reflection in POT, encouraging early reflection. This study examines the model's effectiveness in fostering critical reflection using a qualitative approach. It analyzed observee forms, completed by the observed teacher to record reflections on their teaching, and semi-structured interviews designed to elicit participants' perceptions of the model's effectiveness. The data were subject to thematic analysis. Findings indicate that while the model has some impact in guiding educators to reflect, its overall effectiveness is limited. Participant responses to the interviews reveal several reasons for this, including those documented in the literature and a lack of familiarity with SoTL (scholarship of teaching and learning). This highlights the need for more support, enabling academics to allocate time to SoTL alongside their domain-specific research. Additionally, teachers often did not engage in genuine reflection because they perceived POT as evaluative rather than developmental. This suggests that effectively scaffolding critical reflection requires changing academics' perception of POT as a professional development activity.

13:45-14:10

85524 | *Redesign of an Overseas Faculty Development Program at Waseda University in Japan: A Design-Based Research Report*

Mayumi Abe, Waseda University, Japan

Yusuke Morita, Waseda University, Japan

This presentation reports on the process and outcomes of redesigning an overseas faculty development (FD) program conducted by Waseda University in Japan. The program has annually dispatched a cohort of approximately ten faculty members for a two-week period to University of Washington in the United States. In response to changing circumstances and faculty needs post-COVID-19, we undertook a comprehensive review and redesign of the program. This presentation focuses on the program implemented in 2024, which was redesigned based on a needs assessment conducted among the 2023 program participants. Since the results of the needs assessment revealed a diversification of faculty members' pedagogical experiences and an increased expectation for practical content in the program, two main improvements were planned for the 2024 program. The first improvement involved the pre-departure program, providing pedagogical knowledge in a flexible format blending on-demand content and face-to-face workshops to accommodate participant diversity. The second improvement aimed to enhance practicality in the on-site program by increasing the opportunities for class observations and subsequent discussions. To evaluate the effectiveness of these changes, surveys were conducted with participants four times: before and after the pre-departure program, after the on-site program, and three months after the on-site program. These assessments confirmed enhanced knowledge in the pre-departure program and high satisfaction with the on-site program. Few examples of similar overseas dispatched-type FD programs exist in Japan. Our research will offer valuable insights into the development of a novel model for FD programs through the iterative process of redesigning the program.

14:10-14:35

87777 | *Professional Development for Science Teachers: Advancing Culturally Relevant Pedagogy for Inclusive Science Education*

Tara Nkrumah, Arizona State University, United States

Culturally relevant pedagogy has been underutilized in the professional development of science teachers, yet it is crucial for making science and STEM education more inclusive. How professional development is conducted is as important as the theoretical framework in empowering science teachers to become change agents within educational systems. A culturally relevant pedagogical approach challenges exclusive, standardized teaching methods that often lack multicultural and critical perspectives. Therefore, science teachers need guidance on engaging in political acts, like justice-centered pedagogy, which are typically missing from their professional development curriculum. This qualitative study, involving 32 STEM teachers from both informal and formal learning settings across the United States, employs a critical arts-based methods design for science teacher professional development (STPD) to promote the adoption of culturally relevant pedagogy. The main question explored was: How does integrating a critical arts-based methods approach in the professional development of science teachers influence their critical consciousness in science education to foster social change? Data collection methods included focus groups, equity action plans, field notes, observations, and artifacts such as Jamboard entries and homework assignments. The findings suggest that critical arts-based methods enhance science teachers' understanding of culturally relevant pedagogy as a framework that supports inclusive education. The study underscores the importance of STPD in promoting inclusive teaching practices in K-12 science classrooms across the United States.



12:55-14:35 | Room 707 (7F)

# Wednesday Onsite Parallel Session 3

Educational Policy, Leadership, Management & Administration

Session Chair: Min Yeh

12:55-13:20

83673 | *Total Quality-Oriented Leadership in Private K-12 Schools: A Study of ISO 9001:2015 Implementation Amidst the COVID-19 Pandemic*  
Jayvee Miranda, De La Salle University Integrated School, Philippines

The global disruption caused by the COVID-19 pandemic has profoundly impacted various sectors, particularly education, creating unprecedented challenges. This prompted educational institutions, including Philippine private K-12 schools, to demonstrate resilience across key operational areas. This study explores the management strategies and innovative mechanisms adopted by operational Philippine private K-12 schools amidst the COVID-19 pandemic, specifically focusing on their adherence to ISO 9001:2015 (Total Quality-Oriented Leadership). Employing qualitative research (case study method), the research focuses on the business resilience of the participant schools. Data collection involved semi-structured interviews with school principals from different school divisions, supplemented by relevant school documents such as financial reports, school improvement plans, curriculum, and other documents needed in the day-to-day operations. Inputs from other school community members, such as teachers, staff, parents, and students, were also gathered to triangulate the initial interviews and documents. Cross-case analysis was then employed to discern patterns, differences, and insights across the diverse data sources. The findings underscored the necessity for tailored and collaborative approaches to foster resilience within the educational landscape amidst global health crises. Each school's response to pandemic challenges and the demands of the "new normal" exhibited a unique character, highlighting the individualized nature of their strategies. In conclusion, the study emphasizes the importance of adaptive and collaborative strategies in navigating the multifaceted challenges of the educational sector during the pandemic. Prioritizing customized approaches, collaborative endeavors, flexibility, and innovation equips schools to address effectively the obstacles posed by the pandemic and cultivate a resilient and dynamic educational environment.

13:20-13:45

84468 | *Exploring Principals' Perspectives of Educational Leadership: A Case Study of 10 Curriculum Changes in Indonesia*  
Mursidin Yusuf, Monash University, Australia  
Fitri Wulandari, Diponegoro University, Indonesia  
Anisa Nurfaidah, Monash University, Australia

This study explores the perspectives of principals on educational leadership amidst ten curriculum changes in Indonesia (1947 to 2022). Through qualitative analysis, we aim to understand how these leaders navigate and adapt to frequent shifts in educational directives. We conducted structured interviews with 15 principals from various schools across regions in Indonesia. The inclusion criteria focused on principals who are or have experienced the curriculum changes, ensuring a rich understanding of long-term impacts. We also use the works of literature to support this study. Findings reveal that principals exhibit a dynamic blend of adaptive leadership and resilience. Key themes include the necessity for continuous professional development, the importance of community engagement, and the challenges of maintaining educational quality among frequent policy shifts. Principals highlighted the role of collaborative leadership in fostering a supportive school environment, which was crucial for implementing curriculum changes effectively. Moreover, they emphasized the importance of aligning new curricula with local cultural contexts to enhance student engagement and learning outcomes. The study concludes that while frequent curriculum changes pose significant challenges, they also offer opportunities for innovation and professional growth. Principals who adopt a proactive and inclusive leadership style are better equipped to command these changes successfully. This research contributes to the understanding of educational leadership in dynamic policy environments and provides insights that can inform future educational reforms. The implications for policymakers include the need for stable, long-term planning and support systems to facilitate effective curriculum implementation.

13:45-14:10

85953 | *Strategic Leadership in Education: A Bibliometrics Journey Through Trends*  
Nur Diyana Zakariah, University of Malaya, Malaysia  
Muhammad Faizal A. Ghani, University of Malaya, Malaysia  
Norfariza Mohd Radzi, University of Malaya, Malaysia

Strategic leadership is crucial for school administrators, but studies in other fields have been implemented, and there is still a lack of research on it in education. This article utilized a bibliometric analysis to investigate and provide insight into Scopus-indexed articles on strategic leadership. There have been 992 valid documents retrieved and assessed as of 07 August 2023. This article employs bibliometric indicators to examine research production, active source titles, publishing distribution by nations, active institutions, most productive authors, and citation analysis. For data visualization purposes, we employed VOSviewer. The findings indicate a significant growth in the rate of scholarly publications on strategic leadership in education between 1982 and 2022. A collective of 160 authors representing from 87 distinct nations and 160 institutions have collaborated on many research endeavours pertaining to strategic leadership in education. These articles have been published in various academic publication. This bibliometric review employs descriptive and bibliometric methods to give a thorough analysis of the historical, current, and prospective trends in primary well-being literature. The findings and implications of this study would assist scholars in comprehending the intricacies of strategic leadership in education, while also offering valuable insights to researchers on the present research and future improvements of strategic leadership in education.

14:10-14:35

87024 | *A Case Study on Promoting Collaborative Leadership in School Teams Through Design Thinking*  
Min Yeh, National Tsing Hua University, Taiwan  
An-Min Li, National Tsing Hua University, Taiwan

Schools today face complex issues that cannot be addressed by school leaders making decisions in isolation. Instead, collaboration with teaching teams is essential to maximize the benefits of school innovation. Design thinking involves a group of individuals collectively solving problems, ultimately leading to a shift in collective thinking. This paper explores how design thinking facilitates innovative actions and collaborative processes within school leadership teams. The case study focuses on a teaching excellence team at a school in Miaoli County, Taiwan. Data were collected through semi-structured interviews with the principal and ten teacher leaders, as well as relevant records and leadership questionnaires, to address the research objectives. Through team meetings, teacher leaders identified key issues and discussed them empathetically to define the school's innovative development. The team brainstormed ideas, formulated action strategy plans, and implemented them, continuously adjusting through cyclical academic community meetings. The study found: (1) The principal, via the core team, conceptualized and tested new thematic curricula, while teacher leaders led other teachers in implementation, extending efforts to community parents and resource acquisition; (2) The principal promoted collaborative processes through design thinking, which consisted of four stages: trial period, teacher co-creation period, teacher-student co-learning period, and sustainable development period, with leadership effectiveness increasing over stages; (3) Notably, during the teacher-student co-creation period, design thinking expedited the rapid learning and growth of teacher leaders, enabling them to lead other teachers in developing micro-curriculum innovations on emerging topics, thus enhancing overall school effectiveness. Based on the findings, it is recommended that school leaders use design thinking to foster mindset shifts among teacher leaders, positively influence teacher leaders, and lead school teachers in driving school innovation.

12:55-14:35 | Room 708 (7F)

# Wednesday Onsite Parallel Session 3

## Teaching & Learning Resources

### Session Chair: Elaine Correa

12:55-13:20

85528 | *Evolution of Technology-enhanced Pedagogical Knowledge Building and Sharing: Analysis of Critical Functional Elements of Support Tools*  
Toru Iiyoshi, Kyoto University, Japan  
Yoshimi Kozai, Ritsumeikan University, Japan

This research examines the evolution of technology-enhanced pedagogical knowledge building and sharing through two Community-of-Practice-based educational programs in the U.S. and Japan over the last 20 years, aiming to identify key elements of support tools from the perspectives of tool designers and researchers. The originality of this research is ensured as the authors have been directly involved in the design and development of these tools. The study analyzed the design principles and functions of three tools. The KEEP Toolkit, developed at the Carnegie Foundation's Knowledge Media Laboratory in 2003, was used by over 100 faculty members in the U.S., who were the Carnegie Academy for the Scholarship of Teaching (CASTL) fellows, for documenting and sharing their course transformation projects as online portfolios. Kyoto University's Center for Promotion of Excellence in Higher Education (CPEHE) adapted the KEEP Toolkit for the MOST Fellowship program which was designed after the CASTL program and supported approximately 100 faculty members in Japan, and also developed the MOSTreasure website for documenting and disseminating innovative pedagogical methods across disciplines. Lastly, a Generative AI-based system was developed by Kozai and Iiyoshi in 2024, which integrates the key support functions of both the KEEP Toolkit and MOSTreasure, using Lee Shulman's Pedagogical Content Knowledge (PCK) and TPACK as guiding frameworks. The study concludes that the essential functional elements of these tools are: 1) providing prompts for reflecting on practice, 2) making tacit knowledge explicit, with or without contextual information, and 3) enabling the transfer and adaptation of practical knowledge.

13:20-13:45

85527 | *Development and Evaluation of an AI System for Supporting Elicitation and Sharing of Pedagogical Practical Knowledge*  
Yoshimi Kozai, Ritsumeikan University, Japan  
Toru Iiyoshi, Kyoto University, Japan

This research aims at the empirical development and evaluation of a Generative AI system that supports the extraction and sharing of practical knowledge possessed by university instructors. The study involved: 1) examining design principles that consider the characteristics of practical pedagogical knowledge, 2) developing a Generative AI system based on these principles, and 3) evaluating the performance of the developed system. Firstly, in examining the design principles, a theoretical framework for systematically analyzing and classifying practical knowledge using "Pedagogical Content Knowledge (PCK)" by Lee Shulman and "Technological Pedagogical Content Knowledge (TPACK)", which encompass the knowledge required for effective teaching of content and the effective use of technology, was proposed. In general, practical knowledge includes tacit knowledge, such as teaching tips and pedagogical know-how, which are crucial for successful teaching practice, however, it may not be recognizable by the practitioners themselves. Hence, the requirements for effective "reflective inquiries" in eliciting tacit knowledge were identified and incorporated into the AI system's design principles for inquiry generation. Secondly, based on the design principles, an interactive dialogue-based AI system to elicit practical knowledge from university instructors utilizing Open AI's GPTs was developed. Finally, the performance, accuracy, and validity of the system was evaluated, collaborating with members of the "MOST Fellowship Program," a large-scale community of practice by Japanese university faculty members. The evaluation results demonstrated that the AI system effectively supports eliciting the tacit practical knowledge of university instructors using reflective inquiries as well as systematically organizing and presenting that knowledge for sharing.

13:45-14:10

86813 | *Teaching Avatars: Using Gen AI to Create Micromodules*  
Stuart Hargreaves, The Chinese University of Hong Kong, Hong Kong

Funded by a teaching and development grant from my institution, this project argues that existing commercial AI tools can be leveraged to benefit student learning in the classroom. The adopted tools include: OtterAI for lecture transcription, ChatGPT for summarization and quiz generation, and Elai for digital avatar generation. These tools are combined into a workflow that easily provides students with short video reviews of key lecture points for their own study and revision. The use of gen AI is subject to various ongoing critiques, including possible hallucination and bias. However, AI's ability to effectively simplify and summarize is less subject these issues. This project seeks to harness this strength. While much discourse around generative AI in education has focused on possible issues of 'academic integrity' breaches by students, this project argues that use of AI in the classroom can be extremely beneficial from the other side of the lectern. At the time of writing this abstract, the results are not yet available. However, by the time of the conference, students exposed to the project will have been surveyed anonymously via Microsoft Forms as to the effectiveness of the tools as a learning aid; both Likert scale type and open-ended questions will be posed. While this means I cannot include definitive conclusions about the project in this proposal, I expect to be able to show that AI tools for student learning can be enabled at low cost, in terms of both effort and money.

14:10-14:35

85407 | *Yes, We Are Open! How Open Educational Resources and Open Educational Pedagogies Shape the Equitable Experiences of Teachers and Students*  
Elaine Correa, California State University, Bakersfield, United States  
Alexander Reid, California State University, Bakersfield, United States

Critical discussions are needed to generate viable and sustainable solutions for the use of Open Educational Resources (OER) and Open Educational Pedagogies (OEP) in the context of inequities related to digital access, use of access, and benefits gained from it. Practitioners are beginning to shift educational paradigms from utilizing traditional textbooks to embracing OER for supporting course instruction and OEP to increase student engagement and scholarship with equitable access to educational resources. Digital divides were further illuminated and exacerbated during the pandemic with millions of Americans not using the internet at broadband speeds, and/or having any access to the internet. Concerns about the lingering residual impact of structural inequities as simultaneously technological advances continue to soar invokes questions of: What does it mean to be truly OPEN for the use of OER and OEP? How are inequities related to digital access and digital literacy addressed with OER and OEP? What can an Inclusion, Diversity, Equity, and Access (IDEA) lens contribute for critically interrogating existing concepts and emerging new ways of thinking about what it means to be OPEN? As discussions continue about reducing equity gaps and increasing retention to graduation rates, the revolutionizing power of OER and OEP must be considered. This grant-funded presentation is part of a Department of Education "Pathways of Possibilities for Transforming Higher Education Curriculum Alignment Program" award. Concepts of OPEN for inclusive and equitable education, and the possible impact of OER and OEP in spaces where inequities have remained entrenched are examined in this presentation.

## Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



14:50-16:30 | Room 603 (6F)

# Wednesday Onsite Parallel Session 4

## Design, Implementation & Assessment of Innovative Technologies in Education

Session Chair: Chris Walsh

14:50-15:15

85127 | *Development of the 3D Augmented Reality Media for Equipment Borrowing Service of Undergraduate Students in Applied Computer Science-Multimedia Program*

Saruit Wongdontri, King Mongkut's University of Technology Thonburi, Thailand

Naphatsanan Suwannawong, King Mongkut's University of Technology Thonburi, Thailand

Augmented Reality (AR) offers numerous benefits across various fields by displaying the 3D models of complex structures as real objects in digital information. For improvement of the educational service for many undergraduate students per year at the Applied Computer Science-Multimedia Program in King Mongkut's University of Technology Thonburi, the 3D models in AR for educational equipment were created to improve the equipment borrowing service process. The AR media were made available through QR codes which students can simply scan with their mobile to make visualize understanding better than the 2D picture without the risk of real equipment damage. This approach not only aided in better visualization and understanding of complex equipment but also fosters a more efficient and informed decision-making for equipment selection. The 3D models of real objects were created using the 3D scanner and displayed with AR, which were assessed the qualities by three expert professors. The satisfaction after using AR media of all 3D models was then evaluated with a sample group of 30 undergraduate students in the Applied Computer Science-Multimedia Program, selected by simple random sampling. The tools in this study were the quality assessment form and the satisfaction assessment forms using 5-score rating. This study indicated that the overall qualities of the AR were rated as very good, and the satisfaction level of the sample group was high. Therefore, the implementation of 3D augmented reality media has significantly enhanced the equipment borrowing service for undergraduate students.

15:15-15:40

88424 | *Development of a Digital Camera-Based Attendance and Disease Screening System for University Students*

Suwit Somsuphaphrunyos, Rajamangala University of Technology Suvarnabhumi, Thailand

Sangtong Boonying, Rajamangala University of Technology Suvarnabhumi, Thailand

Anek Putthidech, Rajamangala University of Technology Suvarnabhumi, Thailand

Amnaj Sookjam, Rajamangala University of Technology Suvarnabhumi, Thailand

Nuthawat Mudpetch, Rajamangala University of Technology Suvarnabhumi, Thailand

This research aimed to 1) develop a process for counting student attendance and screening for diseases using digital camera technology, 2) develop an application to manage attendance and disease screening, and 3) evaluate and monitor the performance of the developed system. The study involved designing a process for counting students before entering the classroom and screening for diseases. The population studied comprised students from the Faculty of Business Administration and Information Technology, with the sample group being students from the Digital Business Technology program at Rajamangala University of Technology Suvarnabhumi. The prototype was tested using facial recognition and temperature measurement technology to screen and record data in a cloud-based database. The system included an alert mechanism through the Line application for at-risk individuals, notifying relevant parties to prepare and respond appropriately. The research findings indicated that the developed process for counting attendance and screening for diseases effectively assessed those at risk for COVID-19, showing a high level of efficiency (mean = 4.85, SD = 0.47). The accuracy test group consisted of 30 students from the Digital Business Technology program, with each student tested three times. The results showed that the facial recognition and temperature measurement program had a margin of error of  $\pm 0.3$  degrees Celsius. Expert evaluations of the system's performance also indicated a high level of overall efficiency (mean = 4.81, SD = 0.52).

15:40-16:05

88409 | *The Development of Automated Response System Using AI Chatbot to Supporting and Resolving Network-Related Problems in Thai University*

Sangtong Boonying, Rajamangala University of Technology Suvarnabhumi, Thailand

Anek Putthidech, Rajamangala University of Technology Suvarnabhumi, Thailand

Amnaj Sookjam, Rajamangala University of Technology Suvarnabhumi, Thailand

Parinya Natho, Rajamangala University of Technology Suvarnabhumi, Thailand

Suwit Somsuphaphrunyos, Rajamangala University of Technology Suvarnabhumi, Thailand

The purpose of this research was to develop an automated response system using AI Chatbot to support solving internet connection problems in universities that focuses on designing and developing a system that can respond and provide advice to university staff and professors in universities about internet connection problems that users can inquire about how to solve the problems at any time. The system uses artificial intelligence technology to analyze and process user data to provide basic troubleshooting methods, such as checking internet signals, setting up networks, and fixing common errors. Evaluation method to evaluate the effectiveness of the Chatbot in improving user satisfaction, reducing the workload of IT support staff, and enhancing the overall efficiency of network problem resolution. The evaluation results show that overall user satisfaction scores were highest (Mean = 4.69, S.D. = 0.48). When ranking the specific aspects, it was found that problem-solving quality (Mean = 4.75, S.D. = 0.45), operational efficiency (Mean = 4.68, S.D. = 0.51), and easy to use (Mean = 4.63, S.D. = 0.48) were the top-ranked aspects. These results indicate a significant reduction in the workload of IT support staff, a decrease in average response time, and a high level of user satisfaction. This research emphasizes the benefits of integrating AI-driven solutions to solving internet connection problems in universities and provides valuable insights for future development in automated support systems within Thai universities.

16:05-16:30

85271 | *Transforming Higher Education Through Online Academic Student Support*

Chris Walsh, Victoria University, Australia

Michael Ratcliff, Victoria University, Australia

This presentation explores how rebundling education and leveraging learning analytics can transform higher education through 1:1 online academic student support. Historically, low student motivation and engagement have plagued online education, resulting in high attrition. Our approach addresses these challenges by providing 1:1 online academic support seven days a week, including evenings. We examine the model's impact on student success, retention, and engagement, highlighting best practices and innovative approaches. Our analysis demonstrates that combining learning analytics with tailored online support personalises the educational journey and improves overall academic outcomes. This approach fosters a more inclusive and effective learning environment, ensuring all students have the resources they need to thrive in higher education.

**14:50-16:30 | Room 601 (6F)**

# **Wednesday Onsite Parallel Session 4**

## **Communication Skills & Development**

### **Session Chair: Maria Loreen Lofranco**

**14:50-15:15**

85353 | *Needs Analysis of English Skills Development for Agripreneur of Thai Students in Higher Education*  
Alisa Injan, Maejo University, Thailand

Over the past decade, agripreneurship has emerged to increase the potential of agricultural sector. Many universities have advanced the vision of agripreneur development for students. There is still a limited number of English for agripreneur textbooks worldwide. The aim of this study was to critically investigate the needs analysis of Thai students in higher education to develop English language skills for agripreneur. This study was carried out on a group of thirty agricultural students at Maejo university, Phrae campus, in Northern Thailand. The research instruments included a questionnaire and interviews for developing the six skills of English language learning. Descriptive statistics and the modified Priority Need Index (PNI<sub>modified</sub>) were used for the needs assessment. The results indicated that the students had moderate level of English language proficiency. Most students ranked reading as their best skill ( $X^- = 3.13$ ) and grammar as their weakest skill ( $X^- = 2.53$ ). Another important finding was that the students extensively needed to improve the English skills, especially in speaking, with pitching identified as the most critical task to be an agripreneur (PNI<sub>modified</sub> = 1.70). This was followed by listening, writing, vocabulary, and reading, respectively. An unanticipated finding was that the students still rated grammar as the least skill needed, particularly regarding relative pronouns (PNI<sub>modified</sub> = 0.52). The results of this study will contribute to the course syllabus for the development of an English for agripreneur textbook tailored to the needs and knowledge of Thai agricultural students with Thai-context culture, enhancing sustainable learning in English for specific purpose.

**15:15-15:40**

87134 | *English Professional Communicative Competence in Maritime Graduates: A Systematic Review*  
Anis Yasmin Md Shuhaimi, Universiti Kebangsaan Malaysia, Malaysia  
Nur Ehsan Mohd Said, Universiti Kebangsaan Malaysia, Malaysia  
Melor Md Yunus, Universiti Kebangsaan Malaysia, Malaysia

The maritime industry's evolving landscape has underscored the need for increased professionalism in response to the transformative changes brought about by the Fourth Industrial Revolution (IR4). Consequently, maritime-based universities in Malaysia have prioritised this demand by addressing the importance of specialized English language courses for maritime-specific communicative skills and tasks. This paper is a systematic literature review that overviews the emerging trends and recurring issues regarding English communicative competence within the field of maritime industry and the ESP realm. It also seeks to identify which communicative competencies that are essential for maritime graduate employability. Adhering to the PRISMA guidelines and using three separate databases, Web of Science (WOS), Scopus, and Educational Resources Information Centre (ERIC), 130 articles from Year 2012 to 2024 were extracted, with several inclusion and exclusion criteria. In light of the findings, several key trends have been identified, which include an increasing emphasis on specialised maritime English training programmes and the incorporation of technology-enhanced tools in teaching and learning. In addition, this study revealed several core competencies that maritime graduates could benefit from to minimise communication breakdowns at the workplace. Practically, the review identifies significant research gaps, especially for ESP practitioners and industry stakeholders, to improve English professional communicative competence and address the evolving needs of maritime professionals.

**15:40-16:05**

83414 | *Levels of Communicative Competence in the Workplace: Basis for Academic Intervention Program*  
Maria Loreen Lofranco, University of St. La Salle, Philippines

Communicative competence (CC) is the ability to express oneself effectively in various contexts, needed for employability and sustainability in the workplace. This study assessed the levels of communicative competence of Accountancy and Engineering graduates in various companies in Bacolod City from the perspective of office supervisors. Using a quantitative-qualitative approach, 71 Accountancy (62.28 %) and 43 Engineering (37.72%) graduates were evaluated based on a self-made questionnaire comprising four competencies: grammatical, sociolinguistic, strategic, and discourse competencies; the Expected Lasallian Graduate Outcomes' (ELGO) framework on effective communication; and the requirements of office supervisors in the workplace. To analyze the data, the frequency, percentage, mean, and the Wilcoxon test formula were used. Overall results showed Accountancy and Engineering graduates as having a high level of competence in four competencies in oral and written communication. As for the significant difference, the Accountancy graduates showed a higher level of strategic and discourse competence in oral communication with a p-value of 0.0298, than Engineering graduates with a p-value of 0.0188. For the qualitative responses, office supervisors required fluency, clarity, vocabulary, and mechanics for grammatical competence; appropriate language choice, tone, level of formality, courtesy, politeness, and tact in communication for sociolinguistic competence; use of feedback, listening skills, backchannels, requests for clarification, and circumlocution for strategic competence; coherence and completeness in communication for discourse competence; and Christian values, open-mindedness, flexibility, adaptability, and good interpersonal skills for ELGO attributes on effective communication. The study proposed an academic intervention program to address the competence requirements in the workplace.

14:50-16:30 | Room 604 (6F)

# Wednesday Onsite Parallel Session 4

## Language Development & Literacy

**Session Chair: Maria Orcasitas-Vicandi**

**14:50-15:15**

86434 | *Early Literacy in the Age of New Media: Perspectives from India*  
Aabha Rawat, Dr. B. R. Ambedkar University Delhi, India

There is worldwide significance attached to literacy, witnessed through its feature in Sustainable Development Goals, historically fuelled by the universal and intrinsic value attributed to literacy. Literacy research in the recent decades, however, has taken a 'social turn', highlighting instead the social, cultural and ideologically situated nature of literacy practices. This paper, informed by the sociocultural perspectives, critically examines India's early literacy policies and curriculum frameworks, in order to unpack the colonial underpinnings of the ideas espoused through 'global' and 'digital' education. It further juxtaposes policy and curriculum initiatives with ground practices by reporting the findings from ethnographic case studies of four grade one students from a resettlement colony in India who attended a low-fee private school in the vicinity. Data collection for the study involved six months of participant-observation in the school, home, and community contexts, and conducting interviews with the focal children, their parents and the class teacher. Findings from the study shed light on the evolving nature of literacy practices and knowledge brokering outside of the school context. It highlights young children's engagement with multimodal literacies outside the school that are rooted in their identities and cultures. These literacies, which are dynamic, purposeful and employed in agentive manner for purposes of production and reception, contrasts with the standardised, hierarchical and primarily receptive forms of school based literacy. The paper significantly underscores the act of 'resistance' encapsulated in these literacies against the broader structures of inequality and hierarchy obscured by the domination of school based forms of literacy.

**15:15-15:40**

88245 | *Literacy Skills for the Undergraduate Students in Solving Problems of Data Analysis in the Multilingual and Multicultural Context in Malaysia*  
Ling Yann Wong, Universiti Putra Malaysia, Malaysia

In this study, the literacy skills, language choices and issues of multilingual undergraduate students in data analysis for their bachelor thesis will be a main research goal. The language environment in Malaysia is enrich with multilingual and multicultural information, this situation has raised some challenges for the Malaysian undergraduate students while analysing research data derived from various local languages and dialects. The literacy problems have been identified by this study are included: 1) The sound origins of Chinese dialects and its cultural meanings cannot be identified; 2) The language data are collected from the loanwords and cultural terms from other languages or dialects which are not familiar to the Malaysian undergraduate students; 3) Different literacy skills are required to comprehend multilingual information found in the multicultural contexts; 4) Language choices adopted by the undergraduate students to conduct data analysis should include the language information that they are not familiar. The development of literacy skills for the purpose of bachelor research study should be developed based on the discussion from this study. This study adopts qualitative research method such as fieldwork to collect data related to the multilingual and multicultural environment in Malaysia, based on the data analysis of the bachelor students investigated their research problems in analysing the research data that they have used to produce their bachelor thesis. Suggestions to create some useful literacy skills to assist the bachelor students in comprehending various languages data are the expected outcomes of this research.

**15:40-16:05**

86044 | *Exploring Multilingual Literacy in Primary Education: Embracing All Our Languages to Enhance Writing Skills*  
Maria Orcasitas-Vicandi, University of the Basque Country, Spain  
Imanol Galeano, University of the Basque Country, Spain

The Basque Government's Department of Education has embarked on a mission to enhance children's oral expression and reading and writing abilities across the three languages taught in primary education: Basque, Spanish, and English. To achieve this goal, the Basque Government initiated an analysis of the PYCTO methodology's effectiveness (<https://pictoescritura.com/>), with a particular emphasis on four key areas: reading comprehension, writing skills, language proficiency and transfer, and teachers' attitudes and expectations regarding its multilingual approach. In this study, we exclusively present the findings related to the enhancement of writing skills in the academic year 2022/2023. This study employed holistic and analytic assessment measures in writing, encompassing the three curricular languages in the Basque Autonomous Community (Basque, Spanish, and English). The aim was to investigate the writing proficiency of 2nd (ages 7-8) and 3rd (ages 8-9) grade primary education students before and after a multilingual intervention. A total of 843 compositions in Basque, Spanish, and English were analyzed using quantitative methods. Analytic measures assessed lexical richness, while holistic measures evaluated overall writing competence across four dimensions. Results indicated that students who underwent the multilingual intervention demonstrated superior performance compared to those in control groups across both 2nd and 3rd grades. These findings suggest that pedagogies employing a multilingual approach yield greater benefits than those isolating individual languages.



**14:50-16:30 | Room 605 (6F)**

## **Wednesday Onsite Parallel Session 4**

**Education, Sustainability & Society: Social Justice, Development & Political Movements**

**Session Chair: Siu Ming To**

**14:50-15:15**

87085 | *Constructing and Validating the Marine Resource Conservation and Sustainability Concept Scale for Secondary Education in Taiwan*  
YaYin Liao, National Taipei University of Education, Taiwan  
Liang-Ting Tsai, National Taiwan Ocean University, Taiwan  
ChengChieh Chang, National Taiwan Ocean University, Taiwan

This study developed a Chinese version of the Marine Resource Conservation and Sustainability Concept Scale, suitable for high school students aged 16-18, based on the cognitive, socio-emotional, and behavioral learning objectives outlined in the Education for Sustainable Development Goals (ESDG) by UNESCO. The study examined gender differences in marine knowledge and the concepts of resource conservation and sustainability. This scale consists of four parts: the first part contains ten items developed based on cognitive learning objectives related to marine knowledge. The second to fourth parts are four-point Likert scales developed based on mental, socio-emotional, and behavioral learning objectives, with 10, 6, and 5 items. A valid sample of 291 students was collected for this study. Various psychometric indicators, including Cronbach's  $\alpha$ , Multitrait-Multimethod Matrix (MTMM), confirmatory factor analysis (CFA), and Item Response Theory (IRT), were used to evaluate the reliability, validity, and difficulty of the items. An independent samples t-test was conducted to examine gender differences in the performance of the marine resource conservation and sustainability concept. The results indicate that the scale for students aged 16-18 has robust psychometric characteristics. Furthermore, female students performed significantly better than male students in the overall score and socio-emotional and behavioral learning objectives. The items developed in this study will help reflect students' understanding of marine knowledge and the concepts of marine resource conservation and sustainability, essential for addressing marine environmental issues in real life.

**15:15-15:40**

85147 | *A Critical Service-Learning Approach to Enhancing University Students' Social Awareness and Strengthening Community Engagement*  
Siu Ming To, The Chinese University of Hong Kong, Hong Kong

This paper reports the findings of a case study on a critical approach to designing and organizing service-learning (S-L) programs with university students in Hong Kong. It discusses how this approach contributes substantially by rethinking the meaning of S-L and supporting students in using their service experience to address community needs. A community bridging program adopting the methodology of social design serves as a case to examine how the course instructor, practitioners, and students work together to co-construct alternative practices in S-L in Hong Kong. The findings indicate that both practitioners and students tended to hold positive attitudes toward critical S-L but also encountered various difficulties and challenges in actualization. This may be due to the insufficiency of community resources available to students to empower service users and community members in the local context. Moreover, the findings demonstrated how an egalitarian working relationship between the course instructor and students and the active roles played by students in the design and implementation of S-L programs facilitated the co-creation of the instructor's and students' identities as collaborators. All these helped students generate knowledge from their own reflections and experiences, seek both personal and social changes in their modes of practice, and construct alternative discourses that focus on students' meaning-making, experiential knowledge, and mutual support via S-L. A deep analysis of these findings can give directions for educators to reconceptualize S-L as co-construction, reflexive, and empowerment practices, as well as to reconsider the directions of S-L.

**15:40-16:05**

87103 | *Reconnecting: Community, Education, and Place – Reflections on Educational Resilience During Crisis*  
Dafna Granit-Dgani, Kaye Academic College of Education, Israel  
Arnon Ben Israel, Kaye Academic College of Education, Israel

The interplay between education, community, and place is profoundly significant, particularly during times of crisis. In the aftermath of the recent Gaza conflict, this dynamic has undergone substantial changes, with thousands of Israeli residents and numerous communities displaced from their homes and relocated to temporary accommodations. In response, temporary and makeshift educational settings have been established in diverse environments, including tents, hotels, and outdoor spaces. Despite the substantial challenges faced by these displaced communities, there has been notable pedagogical innovation. In these complex conditions, these provisional education systems are pivotal in fostering community resilience, addressing, among other things, the complex issue of attachment to place. In this lecture, we will present key insights from a conference we organized, which took place on May 29 at the Kaye College of Education. The event brought together a diverse group of researchers and educators from across the nation to explore these issues in depth. The conference highlighted unprecedented and creative unorthodox teaching concepts adapted to the circumstances of evacuation, exposure to war, and resilience in times of crisis. Key topics addressed included living and learning in temporary accommodations, creating educational communities outside traditional physical spaces, and discussing education during wartime. Insights from the discussions at the conference were presented in a series of podcasts, for which we conducted a preliminary qualitative analysis. The study revealed the 'dual mission' of maintaining educational continuity while working towards long-term community rebuilding, highlighting the importance of emergency preparedness, local autonomy, and community resilience in crisis response.

14:50-16:30 | Room 607 (6F)

# Wednesday Onsite Parallel Session 4

## The Teaching of Mathematics

### Session Chair: Remelyn Cheng

14:50-15:15

82507 | *Self-Efficacy in Mathematics Class: Validity and Reliability of Instruments in Private Junior High School Students*

Ovan Ovan, Universitas Negeri Surabaya, Indonesia

Mega Teguh Budiarto, Universitas Negeri Surabaya, Indonesia

Yusuf Fuad, Universitas Negeri Surabaya, Indonesia

The problem in this research is the lack of measuring instruments for junior high school students' self-efficacy in mathematics classes, so they require valid and reliable measuring instruments. This research aims to test the validity and reliability of the Self-Efficacy Questionnaire (SEQ) instrument for junior high school students in mathematics subjects. This research method uses a quantitative approach. The SEQ has been empirically validated by two senior mathematics education lecturers with an average score of  $43.50 > 30.50$ . After being declared valid, the SEQ was given to nine grade 9 middle school students at Muhammadiyah Middle School, Malang City, Indonesia. The results of this research show that of the 20 statements, 17 SEQs were declared valid and 3 were invalid with sig. (2-tailed) 0.70. The conclusion of this research is that 17 valid statements can be used to evaluate junior high school students' self-efficacy in mathematics. It is recommended for future researchers to test the SEQ instrument on a larger population and sample and to arrange a large number of statements in the questionnaire so that they can measure students' self-efficacy better.

15:15-15:40

88039 | *Developing a Just-in-Time Teaching of Calculus-Based Mechanics (JiTT-M) with the Integration of Feynman Approach, Simulations, and Feynman Approach*

Jorge Victor Sales, De La Salle University, Philippines

Jhoanne Rafon-Paghubasan, Centro Escolar University-Manila, Philippines

Maricar Prudente, De La Salle University-Manila, Philippines

The challenge of contextualized and reliable learning materials, foundational mathematical skills, lack of specialists, and laboratory facilities lowered the competency performance of Senior High School learners in Calculus-based Mechanics. Furthermore, the limited contact time hindered opportunities for learners to be given the opportunity to reflect on their learning, which resulted in misconceptions and loss of introspective relevance of the concepts learned. JiTT-M was adapted in designing lesson episodes and materials as a response to this problem. This was achieved by incorporating guided problem-solving using the Feynman Approach, the use of computer simulations, and metacognitive cues to assess individual and group performance. This was conducted with students ( $N=139$ ) from Catanduanes National High School from March to July 2024. The post-implementation results indicated a large significant improvement in mechanics ( $d=1.04$ ), mathematics ( $d=18.42$ ), and metacognition scores ( $d=41.24$ ). A significant positive direct relationship was established between perception to attitudes, perception to mathematics scores, and mathematics scores to mechanics scores using SEM Path Analysis. Learners had identified strategies for metacognition dubbed Metastrategies, which were classified as either internal or external Metastrategies. Moreover, the simulations curated and used by the learners were able to improve the problem-solving strategies in understanding Calculus-based Mechanics.

15:40-16:05

81221 | *Reconceptualized Perspective to Mathematics: Effects on Students' Mathematics Achievement and Learning Experiences*

Rainilyn Duque, Bulacan State University, Philippines

Reconceptualized perspective of mathematics is an alternative view of mathematics that regards its unique universality and at the same time recognizes it as a developing and evolving discipline. Moreover, this reconceptualized perspective is hoped to offer a potential softening of the entrenched divide between the strict absolutist and strict constructivist views of mathematics. The purpose of this study is to determine the effect of reconceptualized perspective on students' learning experiences and mathematics achievement. The study used the quasi-experimental three-group pretest-posttest research design to determine the effects of the teaching approaches: Strict Absolutist, Strict Constructivist and Reconceptualized. The participants were 112 freshmen college students aged 17-18 years old. A Mathematics Learning Experiences Inventory and mathematics achievement test were developed and validated for the purpose of this study. The three different learning approaches were implemented for half the semester or exactly 9 weeks. The results of the study revealed that the Reconceptualized approach to mathematics teaching can better improve students' mathematics learning experiences and achievement than the other two teaching approaches based from the significant differences in the mathematics posttest scores of the students in the three learning groups as revealed by the result of the multiple comparison tests. Furthermore, based on the results of this study, it is being proposed that providing students with rich learning opportunities that foster better understanding of the nature of mathematics vis-à-vis its history and vast application can better escalate students' learning and experiences in mathematics.

16:05-16:30

84649 | *Empowering Mathematical Reasoning: Unveiling the Impact of Phenomenon-based Learning with Formula Derivation*

Remelyn Cheng, Mapúa Malayan Colleges Mindanao, Philippines

Laila Lomibao, University of Science and Technology of Southern Philippines, Philippines

The study delves into the transformative potential of phenomenon-based learning enriched with formula derivation on students' mathematical reasoning in tertiary education. The study used a quasi-experimental pretest-posttest non-equivalent control group design. There were 2 experimental groups, one exposed to phenomenon-based learning alone and the other to phenomenon-based learning with classroom formula derivation activities, and one control group exposed to the conventional method. Multiple solution tasks were used to measure students' level of mathematical reasoning. The data were analyzed using the mean, standard deviation, and ANCOVA. The analysis revealed that students exposed to phenomenon-based learning with formula derivation had the highest post-test mathematical reasoning score. The students in this group had a significantly greater level of mathematical reasoning than did those in the other three groups. Furthermore, students exposed to phenomenon-based learning alone may not outperform students exposed to phenomenon-based learning with formula derivation, but they still had significantly higher post-test mean scores than did students exposed to the conventional type of teaching. The researcher recommends that teachers in tertiary education use phenomenon-based learning with formula derivation in teaching mathematics and related courses since this instructional approach engages students in learning that is more focused on real-life issues, applies skills and knowledge from different subjects, and enhances important skills such as reasoning, problem solving, communication, and teamwork.

**14:50-16:30 | Room 608 (6F)**

## **Wednesday Onsite Parallel Session 4**

**Adult, Lifelong & Distance Learning**

**Session Chair: Chutiwat Suwatthipong**

**14:50-15:15**

83358 | *Navigating the Lifelong Learning Landscape: A Case Study of Singapore*  
Wei Sun Leong, Singapore University of Social Sciences, Singapore

Lifelong learning, defined as the self-initiated and ongoing pursuit of knowledge for personal or professional development, is a cornerstone of Singapore's educational landscape. This study delves into this concept, focusing on key initiatives such as SkillsFuture Singapore (SSG) and the Lifelong Learning Institute (LLI). These initiatives represent Singapore's commitment to fostering a culture of continuous learning and adaptation in the face of rapid technological and societal changes. In this talk, we present both the benefits and challenges encountered in promoting lifelong learning in Singapore. On one hand, we observe benefits such as enhanced employability and improved quality of life. On the other hand, we also discuss challenges such as accessibility, motivation, and the need for a supportive learning environment. Case studies that demonstrate the transformative power of lifelong learning will be presented. These cases provide a more tangible understanding of its effects, showcasing individuals who have successfully navigated career transitions, acquired new skills, and found renewed purpose through learning. The study concludes with a forward-looking discussion on the future of lifelong learning in Singapore. We underline its pivotal role in cultivating a resilient and adaptable society, capable of thriving in an increasingly complex and uncertain world. We also explore potential strategies for further enhancing the effectiveness of lifelong learning initiatives, such as leveraging technology, strengthening partnerships, and fostering a growth mindset among learners.

**15:15-15:40**

84226 | *One Program, Two Pathways: The Transformative Learning Journeys of 2 Adult Learners in Graduate School*  
Jennifer Poh Sim Tan, HELP University, Malaysia

This paper documents the transformative learning of 2 working women adult learners who returned to higher education for the Master of Education (Teaching and Learning). This graduate degree offers two different teaching and learning pathway; the traditional pathway comprising on-campus classes with 11 modules to complete and the APEL Q pathway which requires learners to complete 4 instruments instead of the 11 modules. Learners do not attend physical classes and are assigned an Advisor each who will guide the learners throughout their entire academic journey. To understand how adults learn, Knowles's (1984) Andragogy framework and Mezirow's (2000) transformative learning provide the conceptual framework. The Andragogy framework proposed a set of five assumptions i.e. the learner's making personal decisions, life experiences, readiness, orientation, and motivation to learn explains the learners' intentions for further study while Mezirow's (2000) definition of transformative learning enlightens on how both learners acquired new perspectives which lead to understanding the changes in events. Narrative inquiry was used as the research approach with questionnaire and interviews as data to answer three research questions; what are the experiences of working adult who return to school, have these experiences transformed their lives and does the program structure make a difference in the learning journey? Results reported positive outcomes from the emotional, professional, social, and even physical aspects since completion of the graduate program.

**15:40-16:05**

88420 | *A Review of the Collaborative Learning Process in Learning Communities: Implementation of Paulo Freire's Liberation Education Approach*  
Nur Ilma, Yogyakarta State University, Indonesia  
Naila Intania, Wahid Hasyim University, Indonesia

Learning communities become one of the powerful instruments in the effort to realise liberation education. They create a space of critical awareness, promote individual and group empowerment, social skills development and collective action that leads to social transformation. This research aims to reveal the learning process in learning communities and how to interpret it as Paulo Freire's educational approach based on the principles of liberation education. Although several studies have examined Paulo Freire's humanitarian principles, there are still few studies investigating the implementation and practical guidance on how to apply these concepts to the educational process in learning communities. This approach takes a qualitative descriptive approach with data collection through systematic literature studies in the form of related books and journals. The stages are by determining keywords, setting criteria and analysis by utilising Google Scholar and Scopus. The results outline the process of liberation education in learning communities can be seen in the collaborative planning process, the implementation of education which emphasises dialogue and active participation, and reflective evaluation to identify achievements, challenges and opportunities for improvement. The form of response that emerges from the learning community shows positive things that are shown by changes in the mindset of the learning community. The challenges and obstacles of the liberation education approach in learning communities are also discussed at the end of the study.

**16:05-16:30**

88538 | *The Learning Model in the Metaverse for Promoting Collaborative Learning on the Thai MOOC Platform*  
Chutiwat Suwatthipong, Sukhothai Thammathirat Open University, Thailand  
Thanathnuth Chatpakkarattana, Sukhothai Thammathirat Open University, Thailand  
Suchart Saenpich, Sukhothai Thammathirat Open University, Thailand

This study has two primary objectives: 1) to explore the components and learning model within the metaverse that promote collaborative learning on the Thai MOOC platform, and 2) to develop and refine this metaverse-based learning model. The study identified four key components of the metaverse: 1) People, 2) Learning Strategies, 3) Media, and 4) Technology. The learning process is structured into four stages: 1) Preparation and Immersion, 2) Mission/Quest, 3) Assessment, and 4) Repetition/Reflection. Evaluation results show that the learning model is highly suitable for enhancing collaborative learning on the Thai MOOC platform, with an overall mean score of 4.43 and a standard deviation of 0.53. The components and learning stages received the highest appropriateness ratings, each with a mean score of 4.57 and standard deviations of 0.49 and 0.51, respectively. Among the components, Media was rated the most appropriate, with a mean score of 4.71 and a standard deviation of 0.49. The Man and Technology components were equally rated, each with a mean score of 4.57 and a standard deviation of 0.53. For the learning stages, Preparation and Immersion, Mission/Quest, and Assessment all received equal high ratings, with a mean score of 4.57 and a standard deviation of 0.53, except for Repetition/Reflection, which had a standard deviation of 0.79.



14:50-16:30 | Room 703 (7F)

## Wednesday Onsite Parallel Session 4

Foreign Languages Education & Applied Linguistics

Session Chair: Anna Joan Casademont

14:50-15:15

83648 | *Virtual Linguistic Landscape of Saudi Arabia's Language Policy in Higher Educational Institutions' Websites*  
Nadine Emirey Lacsina, Al Yamamah University, Saudi Arabia

This study aims at examining Saudi Arabia's language policy through the virtual linguistic landscape (VLL) of the kingdom's higher educational institutions' websites. Particularly, the study utilized three overarching frameworks, Ivkovic and Lotherington's (2009) informational and symbolic functions, Spolsky and Cooper's (1991) three-conditional model, and Fasold's (2006) language prestige. The study sought to reveal the languages evident in the university websites, their informational and symbolic functions, and the current language situation of the Kingdom. Results reveal that there are four available languages; English, Arabic, Spanish and French. However, most of the university websites only offered English and Arabic. Hence, multilingual accessibility was not strongly observed. The informational function reveals the speech communities present mainly spoke English and Arabic. Also, it is revealed that highly populous non-Arabic speaking expatriate nationalities were not recognized in terms of language inclusion in the websites, proving the value that the institutions assign to English and Arabic. On the other hand, English was deemed to be a tool to disseminate information to non-Arabic speaking users. In terms of language dominance, English emerged to be valued more than Arabic as reflected through most university websites' preference for English as their default language. The use of English was driven by international collaborations, global ranking efforts, benchmarking curriculums, preparation for Vision 2030, spread of Islamic faith, and better international representation. Considering all the findings vis-à-vis the Kingdom's language policy, the study reveals that the observed bilingual nature of university websites' VLL reflected the country's current language policy.

15:15-15:40

79911 | *"Native Tongue, Foreign Lands": Experiences of Fulbright Foreign Language Teaching Assistants at a US University*  
Gianinna Elaine Labicane, Romblon State University, Philippines  
Celimpilo Ndebele, Curro Holdings, South Africa  
Margarita Staruk, Skyeng Online School, Russia  
Malick Diagne Diouf, Blaise Diagne High School, Senegal  
Dian Febrianti, Universitas Katolik Santo Agustinus Hippo, Indonesia  
Chayanin Phansriswan, Chiang Rai Rajabhat University, Thailand

In this era of globalization, it is of utmost importance that teachers develop intercultural competence to masterfully navigate through increasingly diverse classroom environments. Fortunately, there are abundant transnational mobility opportunities for educators to cultivate their pedagogical skills abroad. Among these opportunities is the Fulbright Foreign Language Teaching Assistant (FLTA) program; a non-degree grant offered in the United States that provides promising educators with an opportunity to develop a comprehensive understanding of unique contexts within academic landscapes all over the world. Hence, this study delves into the multifaceted experiences of nine Fulbright FLTA scholars from the 2022-2023 cohort during their nine-month stay at a private US university, offering insight into the rewarding and challenging aspects of their experience. By conducting a thematic analysis of their narratives, five superordinate themes emerged as the rewarding aspects: student engagement and success, a renewed sense of nationalism, enhanced pedagogical skills, professional growth and impact, and heightened intercultural competence. On the other hand, four superordinate themes—role ambiguity, insufficient or restricted access to resources, culture shock, and lack of promotion for less commonly taught language programs emerged as the challenging aspects of the participants' FLTA experiences. This study concludes that the participants' experiences were diverse and complex, and provides insights not only on how future FLTA scholars can maximize their experiences, but also on how host institutions can establish an enriching experience and supportive environment for international educators.

15:40-16:05

84511 | *Comparison of Aboriginal Language Education in Canada and Australia*  
Diana Po Lan Sham, Hong Kong Chinese Institute of Engineers, Australia

As former British colonies, Australia and Canada treat English as the official language. Due to the linguistic and cultural diversity, a large variety of Aboriginal languages, foreign languages and cultures from their natives have been distributed in these two multicultural societies. In revitalization and preservation of indigenous languages, First Nations languages and culture programs are taught as second languages as well as bilingual-immersion programs in K-12 in Canada, whereas Aboriginal and Torres Strait Islanders languages are taught as second languages in Australia. Basically, the goals, the frameworks and approaches of the Aboriginal language (L2) programs in Canada and Australia are similar and compatible. The major difference between Aboriginal language education in these two countries is that there are Indigenous Language Immersion programs in Canada, but not in Australia. The Indigenous Language Immersion programs implemented in Canada using the First Nations languages as the medium of instruction have been proved having positive effects on Aboriginal language education recently. Osborne and her colleagues (2011) demonstrated that the students in the immersion program comparing to those in L2 program had stronger Mi'kmaq language skills for revitalization of the indigenous language, and the same level of English for future success in the mainstream society. After comparing the similarities and differences of Aboriginal language (L2) education in Canada and Australia, we propose the application of the Canadian indigenous Language Immersion programs in addition to Aboriginal language (L2) subjects may be beneficial to Aboriginal language education in Australia in this paper.

16:05-16:30

84002 | *Exploring the Progression and Dynamics of Learning Minority and Distant Additional Languages: Japanese Speakers Learning Catalan as an Additional Language*  
Anna Joan Casademont, TÉLUQ University, Canada  
Nancy Gagné, TÉLUQ University, Canada

Learning a third or additional language poses different challenges compared to learning a second language (Bardel & Falk, 2020; Festman, 2021). Additionally, when a learner faces a distant language, acquiring the target language is usually more demanding (Ghazi-Saidi & Ansaldo, 2017). As adult learners in instructed settings typically have limited time for learning, language teachers are always striving to find better ways to enhance learners in their learning processes (Arntzen et al., 2019; Gironzetti & Koike, 2016; Haukås, 2016). Moreover, the research community points to the lack of studies on the acquisition of minority languages as opposed to widely spoken languages like English or Spanish (Behney & Marsden, 2021; Gujord, 2021; Leow et al., 2022; Tracy-Ventura et al., 2021). The current study aims to improve our understanding of language acquisition in under-researched settings, namely when learning a distant minority language, by investigating the challenges that Japanese L1 speakers learning Catalan as a third or additional language face at the A2 level. It is also an attempt to better understand additional language acquisition and its implications for teaching writing to support teachers and learners in finding ways to enhance language learning.

**14:50-16:30 | Room 704 (7F)**

# **Wednesday Onsite Parallel Session 4**

**Primary & Secondary Education**

**Session Chair: Yi-An Chen**

**14:50-15:15**

85601 | *Ensure Inclusive and Equitable Education: Who's Left Behind?*

Freshy Windy, University of Indonesia, Indonesia

Azka Muthia, University of Indonesia, Indonesia

There are numerous challenges for Indonesia to achieve inclusive and equitable education. One of the persistent issues is the high number of out-of-school children (OOSC). Therefore, this study aims to identify the determinants of OOSC among 7-to-18-year-olds in Indonesia, who are in the compulsory schooling age range. Using a socio-ecological model approach, determinants of OOSC are examined across various levels: individual, household, and community. This study uses the head of household's education level and employment status as instrumental variables for per capita expenditure (a proxy for income), which is one of the independent variables. Other independent variables are child's sex, disability status, presence of biological mother in household, household size, and type of residence. The results indicate that disability status is the strongest determinant for OOSC among 7-to-18-year-olds. Assuming average values of the independent variables, the likelihood of being OOSC for children with disabilities is 23.5% higher compared to those without disabilities. Another finding is that higher per capita expenditure is associated with a lower risk of children being out of school. Furthermore, boys, children not living with their biological mother, living in households with more than 4 members, and living in rural areas are at the higher risk of being OOSC. The study finally calls for government to; improve facilities and infrastructure, especially in rural areas; provide education assistance for those who are at high risk of being OOSC; and promote inclusive education programs for children with disabilities since they are one of the most marginalized groups.

**15:15-15:40**

88806 | *Investigating the Relationship Between Parental Academic Pressure, English Language Achievement, and Intrinsic Motivation in Vietnamese Secondary Students*

Hoang Huy Nguyen, Nanyang Technological University, Singapore

Tran Anh Thu Ngo, Hanoi University of Science and Technology, Vietnam

Hoang Anh Thu Nguyen, Ho Chi Minh City University of Technology, Vietnam

Ngoc Thang Pham, Western Sydney University, Vietnam

Parental pressure has long been known to have a multi-faceted impact on the academics of children under the age of 18. Nevertheless, it also highly influences the level of motivation of adolescents, creating a complex picture between these three factors. In this particular study, the interplay between parental pressure, children's self-motivation, and a specific field of academic performance – English proficiency – would be assessed. There were 76 children and their respective parents who entered the study. While adolescents would have both their English proficiency and self-motivation evaluated, their parents would answer a survey aiming at understanding the level of expectation they have towards their offspring. Data is tested for reliability, normality, and homoscedasticity before regression analyses take place in order to explore a potential correlation between these highly complex factors. By understanding the sophisticated interactions between parental pressure, children's self-motivation, and their English proficiency levels, the study can answer whether the pressure applied by parents is beneficial for children's motivation as well as their academic performance in language learning. This study is highly novel in the realm of education in Vietnam, where psychological impacts are often under-studied.

**15:40-16:05**

85772 | *Perspectives on Educational Technology Integration from Educational Leaders Before, During, and After the COVID-19 Pandemic Restrictions*

Alma Cardenas-Rubio, University of Texas at Rio Grande Valley, United States

The integration of educational technology is pivotal in enhancing classroom instruction. School administrators must have a clear vision and the necessary skills to effectively leverage emerging technologies (Yu & Prince, 2016). This mixed methods research study explored trends, challenges, and experiences related to educational technology leadership throughout the COVID-19 pandemic. This research identifies educational leaders' barriers to integrating technology before, during, and after the COVID-19 pandemic. Lived experiences and survey findings reveal common themes in the challenges and opportunities encountered by educational leaders when implementing educational technology. The study provides insights into a district leader's decade-long journey, contextualizing each component through personal leadership experiences. The study also examines gender perspectives in educational technology leadership, highlighting how background factors influence the viewpoints of educational leaders. Additionally, it assesses the professional development needs of educational leaders and their peers concerning effective technology integration. These findings emphasize the need for visionary leadership, professional development, and effective budget management. They also illustrate how the zone of proximal development aided a district leader in navigating the educational technology landscape. The Future Ready Framework, presented in this study, provides educational leaders with a navigational tool to understand and apply interconnected strategies that support educational technology. Its goal is to prepare students to contribute effectively to the ever-changing world of technology. The combination of the Future Ready Framework and this mixed methods research offers insights into how to leverage technology to meet the needs of learners and communities.

**16:05-16:30**

86034 | *Enhancing Teachers' Digital Teaching Competencies: An Action Research on Integrating Digital Technology into Lesson Study in Primary and Secondary Schools*

Yi-An Chen, National Tsing Hua University, Taiwan

Yi-Ju Lin, National Tsing Hua University, Taiwan

Mei-Ju Chen, National Tsing Hua University, Taiwan

This action research explores how a digital empowerment program can enhance the digital teaching capabilities of elementary and junior high school teachers, assessing its impact on teaching quality and student learning outcomes. Against the backdrop of rapid technological advancements and the pandemic, digital learning has become mainstream, yet teachers' digital teaching skills vary greatly. In response, a city implemented a comprehensive plan in the 112th academic year to improve teaching professionalism and curriculum quality, establishing a digital learning work circle to enhance teachers' classroom digital technology application skills. Using action research methodology, the study designed and implemented a series of digital teaching training activities, involving teachers from the city's elementary and junior high schools. Tools included surveys, interviews, teaching observations, video recordings, and reflective journals, with both qualitative and quantitative data analysis. The action plan comprised three phases: needs assessment and current status analysis, digital technology application training, and implementation of digital open classes and workshops. Results indicated significant improvements in teachers' digital teaching abilities, leading to enhanced teaching quality and student learning outcomes. Teachers reported positive impacts of digital tools on teaching and increased classroom interaction and student interest. The study recommends enhanced support for teacher digital training, continuous digital teaching support systems in schools, and promotion of teacher experience sharing. This research underscores the importance of digital teaching in modern education and highlights the efforts and successes of teachers in improving their digital teaching skills.

14:50-16:30 | Room 705 (7F)

# Wednesday Onsite Parallel Session 4

Professional Training, Development & Concerns in Education

Session Chair: Hsiu-Chu Hsu

14:50-15:15

85448 | *Implementation of Experiential Learning Courses in Public Teacher Education Institutions*  
Sherry Ann Medrano-Bacolod, Polytechnic University of the Philippines, Philippines

Pre-service teacher training is a vital phase in the learning journey of teacher education students. In the Philippines, the Commission on Higher Education and the Department of Education collaboratively implement pre-service teacher training policies. Experiential Learning Courses pertain to the field study and practice teaching courses required in the new teacher education curriculum. This study aimed to determine the perception of college supervisors on the implementation of Experiential Learning Courses (ELCs) in public Teacher Education Institutions (TEIs) in Metro Manila, Philippines. A total of 82 college supervisors from selected TEIs participated in the study. It employed the quantitative method, using proportionate sampling and multi-stage sampling techniques to select the respondents. A validated and reliability-tested questionnaire was used to gather the data. The findings of the study revealed that the roles of TEIs in the implementation of ELCs were generally highly implemented. Moreover, the study revealed that the college supervisors' assessments of the implementation of TEIs in ELCs differed significantly depending on the school's classification. Contrarily, there is no significant difference in their assessment when grouped based on years of teaching and years of expertise in handling ELCs. The respondents identified some challenges encountered in the deployment process. The primary challenges were the delayed deployment of pre-service teachers and the limited time available to visit all the cooperating schools due to other teaching responsibilities. Hence, these findings can serve as a starting point for policy review to enhance the implementation of experiential learning courses in the future.

15:15-15:40

88632 | *Unpacking Factors that Shape the Development of Expert Teachers*  
Shu-Shing Lee, Nanyang Technological University, Singapore  
Kalaivani Ramachandran, Nanyang Technological University, Singapore  
Monica Ong, Nanyang Technological University, Singapore  
Alice Hu, Nanyang Technological University, Singapore  
Thana Luxshme Thaver, Nanyang Technological University, Singapore  
Alexius Chia, Nanyang Technological University, Singapore

The teacher is recognised as the key variable in student learning. Whilst research has been conducted on expert teachers' competencies, few focus on factors that shape the development of teacher expertise. This paper is situated in Singapore and describes factors that shape the development of expert teachers' expertise. This paper adopts a collective case-study approach. Semi-structured interviews were conducted with 11 Master and Principal Master Teachers across disciplines. Within- and cross-case thematic analyses were employed to examine the learning experiences, contextual, and individual factors that shaped their professional growth. Findings describe the complementary nature of formal and informal learning platforms as key in providing expert teachers with different opportunities to develop their expertise. Formal learning platforms and structures encompass multiple levels, at the school, zonal and national levels. These formal platforms emphasise the sharing of best practices, theory-practice connections, teachers' experiences and contexts which provide diverse perspectives and insights on the development of expert teachers' competencies. Informal learning, such as intentional reflection and professional conversations, were also highly valued professional learning experiences. Professional learning experiences seem to be productive and value-adding when teachers' learnings are reinforced across different contexts within, across and beyond schools, involve professional communities, are supported by school culture and leadership, focus on different learner profiles and needs, as well as developing subject content expertise. Findings contribute to evidence-informed ways of designing and implementing professional learning experiences for developing teacher expertise and capacities.

15:40-16:05

88603 | *The Study of Creative Aging Art Programs and Teacher Training in Taiwan*  
Hsiu-Chu Hsu, National Dong Hwa University, Taiwan

As Taiwan's society rapidly ages, there is a growing need to enhance the quality of life for the elderly, making aging art education increasingly important in supporting their well-being and social participation. Creative aging art education, in particular, can significantly contribute to the holistic health for elder adults. The Taiwan government has been actively establishing resources such as long-term care facilities, day-care centers, and community care services to support aging in place, all of which require the integration of art and cultural activities. This study reviews the principles of creative aging art education in an aging society, examining the demand for and current status of senior art programs and teacher training in Taiwan. The research findings include (1) the planning of senior art education curricula; (2) the practical implementation of senior art teacher training. The results of this study will serve as a crucial reference for the Taiwan government when formulating future policies on senior art education and setting standards for senior art teacher qualifications.



**14:50-16:30 | Room 707 (7F)**

# **Wednesday Onsite Parallel Session 4**

## **Education & Difference**

### **Session Chair: Simon Hayhoe**

**14:50-15:15**

88528 | *Validating the Arabic Adaptation of TOWL-4 for Middle School Students in the UAE: A Psychometric Evaluation*  
Badiya AlSadrani, United Arab Emirates University, United Arab Emirates

Writing proficiency is essential for academic success, yet many students struggle with writing disorders. Standardized tests like the Test of Written Language (TOWL-4) are crucial for identifying these disorders, but research on adapting such tests for non-English contexts is limited. This study aimed to address this gap by adapting and validating the TOWL-4 for Arabic-speaking middle school students in the United Arab Emirates (UAE). A total of 482 students participated, representing diverse genders, nationalities, and grade levels. The adaptation process involved translation, piloting, and thorough psychometric evaluation. The results indicated strong psychometric properties, including high internal consistency ( $\alpha \geq 0.90$ ), excellent test-retest reliability, and substantial inter-rater agreement. Content validity was supported by expert consensus, while criterion validity was established through significant correlations with Arabic exam scores. Construct validity was confirmed through TOWL-4 correlations with age and grade, and known-groups validity was demonstrated by significant score differences between typical students and those with disabilities. Gender differences were noted, with females generally outperforming males. However, the study identified limitations, such as reliance on a single narrative prompt, which may affect student engagement. The study recommends future longitudinal research and broader sampling to refine the tool further. This research contributes to the field by offering a culturally relevant, reliable, and valid assessment tool for screening writing disorders, facilitating personalized educational strategies and interventions in the UAE's unique educational landscape.

**15:15-15:40**

88307 | *Analysis of the Deaf and Hard-of-Hearing Mainstream Classroom Connoisseurs' Experiences: Emerging Curricular Components*  
Vitus Paul De Jesus, University of Santo Tomas, Philippines  
Angela Fatima Guzon, Ateneo de Manila University, Philippines

Despite the calls and efforts of the international agencies/organizations for the creation, promotion and implementation of measures that would assert the right of the deaf and hard-of-hearing (D/HH) learners to access a culture-sensitive education of good quality, numerous foreign and local studies would attest to the prevailing need of an organized form of support services. Recommendations have been made that would benefit including those taught in predominantly hearing classrooms. Among these recommendations is to make the curricula suitable for the mainstreamed D/HH learners. The paper presents the results of the method adopted to modify the general mathematics curriculum currently used in Philippine public schools' mainstream D/HH classrooms. Such method was presented on the 15th Asian Conference on Education (ACE2023). Using Tyler's Evaluation Model and Eisner's Connoisseurship Evaluation Model, the whole process combined scientific and humanistic ways of examining how the geometry competencies of Grade 7 mathematics are covered in terms of the five curricular components of learner outcomes, time allocation, learning experiences, learning assessment, and learning materials. From such examination, five more curricular components emerged. These are the remediation, interpreter-teacher collaboration, non-Math related school events/activities, seating arrangement, and stakeholders' role. Furthermore, some curricular components should be viewed as a single working component. The product of the analysis is a curriculum adaptation model that can serve as a model for developing and modifying curricula in other Mathematics subjects for the community of learners in the D/HH mainstream classroom, and of other mainstreamed learners with special needs.

**15:40-16:05**

83674 | *Information Needs Assessment for Persons with Disabilities in Cambodia*  
Phoury Bun, Cambodia Development Resource Institute, Cambodia

People with disabilities are entitled to the same freedoms and human rights as everyone else, including the right to access information (UDHR, UNCRPD, 2008). However, many countries, including Cambodia, still do not have laws or measures to provide information in accessible formats to them (Richter et al., 2023). This study examined information accessibility for people with disabilities in Cambodia by analyzing the legal framework, implementation, current accessible information, challenges, and types of future information that people with disabilities need. The study implemented an explanatory sequential design of mixed methods, which weaved the data from the 2021-22 Cambodia Demographic Health Survey (CDHS), mapping review and 61 FGDs, IDIs, and KIs. In Cambodia, 1 in 4 people over 5 years old is likely to have a disability. This group skews older, female, and rural. The most common types of disability included difficulties in seeing, remembering, and walking/climbing. Education and work opportunities are limited, especially for women with severe disabilities. Their health and quality of life are lower overall. To date, there remains no specific legal framework in Cambodia addressing access to information specifically for persons with disabilities, making it difficult to enforce. Information exists, but formats and support for accessing it are limited. Regardless of the currently accessible information and different access modes, persons with disabilities expressed a demand for information on economics, education, healthcare and more. This information should be tailored to different types of disabilities, trustworthy, translated, clear, simple, and timely.

**16:05-16:30**

84140 | *Developing Inclusion for People with Disabilities in Non-Traditional Educational Environments: A Case Study of the National Parks Service, USA*  
Simon Hayhoe, University of Exeter, United Kingdom

This presentation will discuss the nature of inclusion for adults with disabilities in non-traditional educational environments, such as museums, monuments and national parks. It also presents a case study of the evolution of inclusion in the US National Parks Service (NPS). The case study was conducted through a grounded methodology study, which included a review of policy documentation and interviews with an officer at NPS headquarters and four local parks officers tasked with providing access. These interviews were analyzed using a model of inclusive capital. The aim of this presentation is to provide a greater understanding of how social inclusion has evolved in recent history, and how it has been coordinated in US federal-government-run sites whose purpose is to balance preserving the environment with providing education and information. At present, this is a lightly discussed topic and one in need of greater attention. The presentation is set out in the following three sections: (1) The first section explains the context of inclusion in non-traditional educational environments and the model of inclusive capital; (2) The second section examines the evolution of inclusion in the NPS and

14:50-16:30 | Room 708 (7F)

# Wednesday Onsite Parallel Session 4

## Professional Training, Development & Concerns in Education

### Session Chair: Sakesun Yampinij

the development of its access service; and (3) The third section concludes this research.

**14:50-15:15**

88301 | *Factors Related Entrepreneurial Intention Among Engineering and Technology Undergraduates in Thailand: A Confirmatory Factor Analysis Approach*

Piyanan Wongtaweelat, King Mongkut's University of Technology Thonburi, Thailand

Mongkhon Narmluk, King Mongkut's University of Technology Thonburi, Thailand

Sirimonpak Suwannakhun, King Mongkut's University of Technology Thonburi, Thailand

Tanes Tanitteerapan, King Mongkut's University of Technology Thonburi, Thailand

The purpose of this research paper is to explore the factors impact to the entrepreneurial intention of undergraduate engineering and technology students in Thailand. The sample group is 420 valid questionnaires by final-year bachelor's degrees in engineering and technology from 7 public and private universities. The research tool is a questionnaire of students' opinions on various factors, including attitudes, self-efficacy, social norms, entrepreneurial network relation and entrepreneurship policies to promote entrepreneurship intention to become entrepreneurs. Conceptual Framework based on Theory of Planned Behavior. Ajzen (1991). The results showed that all 5 factors are positively and significantly affect students' entrepreneurial intentions at a good level, with CFI = 1.00, NFI = 0.99, GFI = 0.97. Statistically significant component weights at the .01 level in all aspects, ranging from .84 to .95, indicating that all 5 components are statistically significant. Factors directly related to entrepreneurial intention, from most to least, are self-efficacy (0.95), entrepreneurial network relationships (0.90), social norms (0.85), and entrepreneurship policy and attitude equally at (0.84). The research found that students tend to view various situations and think of good opportunities to start their own new business and are confident that they have sufficient knowledge to have their own new business. So, this research may be used to revise the curriculum in university and as a guide to develop and promote entrepreneurship for engineering students after graduation.

**15:15-15:40**

85254 | *Transforming Workplace Communication: Insights from PROG Test Research in Global Engineering Settings*

Akihiro Tanabe, RIASEC Inc., Japan

Naoki Matsumura, RIASEC Inc., Japan

Generic skills, such as communication, problem-solving, and teamwork, are widely recognized as crucial for success in the workplace since they are applicable across various professions and fields. Due to recent transformations in job roles and skill requirements, the measurement of these generic skills has gained increased attention. The authors have been researching the generic skills of students and working professionals, assessing their skill levels using a tool called the Progress Report on Generic Skills (PROG) Test. Since 2012, over 2 million students and adults in Japan and overseas have taken the PROG test for career education and corporate human resource development. In this presentation, the authors focus on the communication component of generic skills, which is essential for effective collaboration within a group. Based on our research findings and our collaborations with companies in Thailand and Saudi Arabia, we will discuss the necessary transformations in basic workplace communication processes, particularly in global engineering settings. In these environments, it is essential to improve communication by collecting information from each other. Moreover, flexible communication on a project-by-project basis is vital to meet the sophisticated and rapid demands of product development. The transformation in the global workplace communication also relates to processes for engineers to understand their strengths and weaknesses, clarify their intentions on how to utilize them, and then plan and implement a career strategy.

**15:40-16:05**

85559 | *The Impact of Skill Test on Technical High Schools in Taiwan*

Jen Chia Chang, National Taipei University of Technology (NTUT), Taiwan

Shao Chen Chou, National Taipei University of Technology (NTUT), Taiwan

This study primarily investigated the impact of skill test on vocational education in Taiwan. The skill test certificate, issued by the government, assessed the proficiency of technical skills, providing vocational school students with a clear understanding of their learning outcomes. Through a questionnaire survey, this research gathered insights from vocational school principals regarding the use of skill test as a measure of student skill acquisition and its appropriateness within the educational context. A survey was done utilizing a combination of open-ended and closed-ended questions as research instruments. The study specifically targeted principals of technical high schools. A total of sixty questionnaires were gathered and examined. The results indicated that the primary benefits of implementing skill test were the improvement of students' technical proficiency (98.3%) and teachers' professional instructional skills (71.7%). The primary issues requiring improvement were the impact of skill test on traditional school instruction (45%) and the obsolete nature of examination questions (33.3%). The policy recommendations included: (1) increasing industry participation and assigning private organizations to manage relevant skill test certificate under the Workforce Development Agency, MOL supervision; (2) reviewing and updating skill test to improve their content; and (3) urging the Ministry of Education to align the curriculum with skill test requirements. In conclusion, optimizing the content and processes of skill test, promoting Occupational Competency Standard, and enhancing the social image of vocational education could effectively change societal perceptions of skills and improve the overall quality of vocational education.

**16:05-16:30**

86607 | *Development of Learning Innovation on Digital Learning Ecosystem to Promote Entrepreneurial Intent and Entrepreneur's Professional Skills*

Sirimonpak Suwannakhun, King Mongkut's University of Technology Thonburi, Thailand

Sakesun Yampinij, King Mongkut's University of Technology Thonburi, Thailand

Naphatsanan Suwannawong, King Mongkut's University of Technology Thonburi, Thailand

Wallapa Wassanasompong, Srinakharinwirot University, Thailand

Jiruth Patanachan, King Mongkut's University of Technology Thonburi, Thailand

Apichaya Panicnok, King Mongkut's University of Technology Thonburi, Thailand

This research aims to develop and evaluate learning innovations within a digital learning ecosystem to promote entrepreneurial intentions and skills among diverse target groups, including the unemployed, farmers, the elderly, and families seeking income generation. The study's objectives are to develop digital learning innovations, assess their impact on entrepreneurial intentions and skills, and examine learning participation. Utilizing technologies like ZOOM and LINE, along with community libraries, the research supports the Next Normal transition with modern teaching media covering at least 10 occupations in Bangkok and local agencies. The mixed-method study, involving an initial 100 participants with plans for expansion to thousands of unemployed and 8,930 elderly individuals, collaborates with vocational training schools and local agencies. Key findings reveal excellent ratings for the developed innovations (mean 4.51, S.D. 0.43), high satisfaction with occupational media (mean 4.82, S.D. 0.41), and increased entrepreneurial intentions among participants. This research contributes to sustainable career development, enhances reading skills, and promotes self-development, ultimately benefiting both individuals and the nation.

## Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



16:45-18:25 | Room 605 (6F)

# Wednesday Onsite Parallel Session 5

Interdisciplinary, Multidisciplinary & Transdisciplinary Education

**Session Chair: Allya Paramita Koesoema**

through innovative learning approaches in the digital ecosystem.

**16:45-17:10**

88467 | *Uncovering Learning Through Integrative Activities (IAs) Among Lower Secondary Science Students*

Charlene Seah, Ministry of Education Singapore, Singapore

Apart from strong disciplinary fundamentals, the ability to “connect-the-dots” by drawing on interdisciplinary perspectives helps students in navigating a hyper-VUCA world more effectively and confidently (Kozak, S & Elliot, S., 2015). To strengthen the connections between disciplines in the General Science Syllabus, four Integrative Activities (IAs) were designed as culminating tasks for science students to integrate knowledge for exploring and solving real-world problems. An exploratory case-study was conducted to study: (i) the design features of the IA for students to make inter-disciplinary connections; and (ii) the reasons for teachers’ customisation of the IAs. The study involved 9 secondary schools in Singapore, representing student across the learning readiness spectrum. Findings from lesson observations, student artefacts and post-course teacher and student perception surveys were analysed using the lens of three approaches to interdisciplinary curricula (Nikitina, 2006), two dimensions of learning environments (Aldridge, Laugksch, Seopa & Fraser, 2006) and task-specific rubrics. Additionally, significant differences in expected and actual experiences were surfaced using standard deviation and effect size. Findings suggest how integrative approaches may be used for designing and enacting tasks with STEM features within the formal Science learning. Furthermore, IAs exemplify the possibility of retaining subject disciplinarity in the formal Science curriculum while integrating with other disciplines. The findings also highlighted the importance of teacher competencies in facilitating epistemic knowledge in these IAs. The potential use of manipulative kits to support such open-ended tasks through blended-learning was observed.

**17:10-17:35**

87231 | *Bridging Self-Directed Learning and Competency in Interdisciplinary Teaching Among STEM Lecturers: How Psychological Capital Makes the Connection*

Wenhao Su, University of Malaya, Malaysia

Hidayah Mohd Fadzil, University of Malaya, Malaysia

Rose Amnah Abd. Rauf, University of Malaya, Malaysia

University STEM education plays a pivotal role in cultivating innovative talents and has been elevated to a strategic priority by many countries. However, the shortage of lecturers proficient in interdisciplinary teaching poses a significant constraint on the advancement of STEM education at the university level. Moreover, there is a lack of studies investigating the relationships between self-directed learning (SDL), psychological capital (PsyCap), and competency in interdisciplinary teaching (CIT). This study adopts a causal-relationship design to develop and test a mediation model, examining PsyCap as a mediator in the relationship between SDL and CIT among 427 Chinese university STEM lecturers, selected through proportional stratified random sampling in an online survey. Partial least squares structural equation modeling (PLS-SEM) was used to test the relationships. The results indicate that SDL (self-management, learning desire, and self-control) positively and significantly impacts CIT (interdisciplinary teaching design, implementation, and evaluation). Additionally, SDL is positively correlated with PsyCap (self-efficacy, hope, resilience, and optimism), which in turn is positively correlated with CIT. PsyCap partially mediates the relationship between SDL and CIT. This study enriches the existing literature by empirically examining the interface of SDL, PsyCap, and CIT among university STEM lecturers. The findings provide new practical pathways for the long-term homogenized training of STEM lecturers and demonstrate that promoting their SDL and PsyCap can significantly enhance the overall quality of interdisciplinary teaching at universities.

**17:35-18:00**

85602 | *Interdisciplinary Case Method Approach for Biomedical Engineering and Medical Students*

Allya Paramita Koesoema, Institut Teknologi Bandung, Indonesia

Yoke Saadia Swito, IEEE SIGHT Indonesia, Indonesia

Health technology development has always been an interdisciplinary field involving collaboration between engineers and medical experts combining their respective skills. However, the education of biomedical engineers and medical workers are predominantly still monodisciplinary, with doctors studying in medical schools and biomedical engineers in engineering schools with very little overlap. This paper describes the development of an interdisciplinary case study-based course on human Anatomy & Physiology that involves collaboration between engineering students and medical students. In each case study, students are presented with a medical case, in which engineering and medical students would have to make decisions sequentially or cooperatively. For example, medical students would have to make decisions on clinical aspects of the case while the engineering students make decisions on the medical devices aspect. In the end of the case, they would have to make a decision on a diagnosis and course of treatment. The case study modules are developed using the H5P tool and thus can be done online interactively or on site in the classroom. Three pilot modules have been developed and are to be tested with second and fourth year biomedical engineering students working together with fourth year medical students taking a course on human anatomy and physiology.

**18:00-18:25**

85383 | *Transforming Education: Using the Pedagogy, Space and Technology (oPSTi) Framework to Teach Project Based Learning Among Southeast Asia Educators*

Sanura Jaya, SEAMEO RECSAM, Malaysia

Parvinder Singh Amar Singh, SEAMEO RECSAM, Malaysia

Azman Jusoh, SEAMEO RECSAM, Malaysia

Digital citizenship encompasses interaction via the network, appropriate learning spaces and suitable technology tools in an emerging trend in STEM education. The digital literacies comprise the teaching and learning skills that enable technology to emerge in teaching and learning. This article examines the transformative impact of the Pedagogy, Spaces, and Technology (oPSTi) Framework on teaching and learning among educators in Southeast Asia. The study employed a case study research design using post-test questionnaire. Twenty-four educators from Southeast Asian were involved in the purposive sampling to identified the impact of the oPSTi framework in teaching and learning. The findings reveal a significant enhancement in teaching practices, experiences, and confidence among these educators following their engagement using the oPSTi Framework in the workshop. The findings indicated the key pedagogical strategies and innovative teaching activities, which were highly effective, with a mean value ranging from 4.41 to 4.68. The framework’s emphasis on self-determined learning, adult learning principles, and project-based learning with the application of digital learning tools was pivotal in this enhancement. Notably, the use of technology tools, both hardware and software, enabled effective integration of coding and computational thinking skills using Magnetcode. The respondents reported increased motivation and a greater propensity to recommend the oPSTi Framework to their peers, highlighting its potential to drive substantial improvements in educational practices. The study underscores the oPSTi Framework’s capacity to foster a dynamic and effective teaching environment, aligning with the current trends in digitalization of STEM education. This transformation is crucial for equipping educators with the skills and confidence needed to integrate coding and

**16:45-18:25 | Room 607 (6F)**

# **Wednesday Onsite Parallel Session 5**

## **The Teaching of Biology**

### **Session Chair: Leemarc Alia**

programming into their teaching practices, ultimately contributing to the broader advancement of STEM education in the region.

**16:45-17:10**

88166 | *Leveraging AI for Concept Mapping: Effects on Motivation and Achievement in High School Biology Students on the Topic of Homeostasis*

Norhikma Baharom Ulom, University of Malaya, Malaysia

Hidayah Mohd Fadzil, University of Malaya, Malaysia

The emerging of artificial intelligence (AI) in education tools creates a new phenomenon in the teaching and learning strategies with propositional of students learning and engagement. This concept paper will become a baseline for the research to investigate how the use of AI for concept mapping will affect students' understanding of biological concepts, which are in the topic of homeostasis, and their motivation to learn. Biology is one of the conceptual-based subjects that requires students to connect the facts being learned. With the use of AI tools, this intervention aims to help teachers change the traditional class setting into active learning methodologies, in which teacher act as facilitators in promoting students to develop their digital concept maps. This study will employ a quasi-experimental, quantitative pre and post-test methodology to access the relationship between the use of AI-based concept mapping and changes in motivation and learning achievement using the Motivated Strategies for Learning Questionnaire (MSLQ) and test performance. From the study, it is expected that the use of AI for concept mapping will result in improved academic performance and student motivations. These findings could inform teachers and educational policymakers about the best practices of instructional strategies to enhance students motivation and achievement in biology education. Hence, this intervention hopes it will improve students understanding of the concepts in biology and homeostasis specifically and give them the ability to apply the knowledge in their educational journey and in life.

**17:10-17:35**

80168 | *The Use of Digital Media in Empowering Students' Digital Literacy and Critical Thinking in Biology Learning*

M Imam Fauzi, The State University of Malang, Indonesia

Mimien Henie Irawati Al Muhdhar, The State University of Malang, Indonesia

Hendra Susanto, The State University of Malang, Indonesia

This research is qualitative and aims to find out how digital media is used to empower students' digital literacy and critical thinking in biology learning. The methods used were filling out questionnaires and conducting interviews. 76 class XI students at SMA Negeri, 1 Kesesi, Indonesia, and 2 biology teachers were selected as the research sample in this study. The research results showed the following aspects: Firstly, the student's digital literacy questionnaire is 71%, which is classified as moderate in digital literacy indicators including finding, using sources, selecting, evaluating, considering sources, message effects, and using data to produce work; secondly, students critical thinking skills is 65% which is classified as relatively low, not yet able to assess evidence, compare and contrast various objects with actual conditions and cannot examine them objectively; thirdly, some of the things that teachers do to train these two skills are by inviting students to search for information via Google/search engines and video searches to support the teacher's explanations, using Canva to make some presentation and using Google Lens to image any plants around the school. Unfortunately, teachers do not train them on how to search using appropriate keywords and trusted sources. Finally, teachers must be more active and innovative in maximizing the wise use of digital media to improve students' digital literacy and critical thinking skills.

**17:35-18:00**

81630 | *Correlating Biophysics Anxiety and Performance Among Biology Students in Two State Universities in Mindanao, Philippines*

Leemarc Alia, Mindanao State University at Naawan, Philippines

Ehrlrich Ray Magday, Central Mindanao University, Philippines

This study investigated the influence of biophysics anxiety on the performance of biology students. It utilized descriptive-correlational quantitative research design. Twenty five item Biophysics Anxiety Rating Scale was adopted and modified to measure the level of biophysics anxiety among the one hundred twenty six selected college students in Mindanao. The study found out that there are four constructs formed and all have moderately anxious level on students' anxiety namely; construct 1: lack of foundational knowledge; construct 2: Test taking and instructors presence; construct 3 lack of laboratory skills; and construct 4 lack of self-confidence. Majority (43.65%) of the students got a final grade of excellent. In addition, there was no significant difference observed on the level of anxiety between male and female students. Moreover, students' demographic profile such as university attended, sex and SHS strand has no significant influence on the level of anxiety in biophysics but, age is significant and it implies that students with different age bracket can be associated to different level of anxiety. Furthermore, there was no significant influence between the constructs manifested by students and their performance in biophysics. Thus, the level of anxiety of students is not an indicator on the performance of biology students, further study is suggested to consider other factors that may contribute to the differences in the biophysics anxiety level of students

16:45-18:25 | Room 608 (6F)

# Wednesday Onsite Parallel Session 5

Adult, Lifelong & Distance Learning

Session Chair: Siw Fosstenløkken

16:45-17:10

85265 | *Development of Online Video Learning Media on Paper Box Packaging Production for Understanding Enhancement of a Manufacturer's Staffs and Customers*

Ratsamee Narktabtim, King Mongkut's University of Technology Thonburi, Thailand  
Yathana Pakawattankoson, King Mongkut's University of Technology Thonburi, Thailand  
Suchapa Netpradit, King Mongkut's University of Technology Thonburi, Thailand  
Sasita Thakerngsri, King Mongkut's University of Technology Thonburi, Thailand  
Sirinuch Khaebamrung, King Mongkut's University of Technology Thonburi, Thailand

Nowadays, many products require box packaging to protect them during transportation, handling, and storage, making mass production for many industries. To provide important knowledge for paper box production, online learning using VDO media should be created to enhance understanding for the relevant persons. The objective of this project was to develop video learning media, especially for staffs and customers on the paper box packaging production process as the requirement of a manufacturer. The video materials of five learning modules were created using the InShot program and the qualities of online video learning material were then evaluated. The learning effectiveness and satisfaction of the sample group were assessed using 25 learner participants, including new staffs of the manufacturer, undergraduate students of a packaging program, and interested persons. The tools included a quality assessment form, a pre-test and post-test consisting of 20 multiple-choice questions, and satisfaction evaluation form using 5-score rating. The results indicated that the overall content quality was good (mean = 3.96) and the media quality was good (mean = 4.37). The learning effectiveness determined from the test scores showed that the post-test was 44.2% higher than the pre-test, statistically significant at the .05 level. The average normalized gain (N-gain) was 0.64, indicating as a medium level of learning effectiveness. The sample group expressed a high satisfaction with the learning materials (mean = 4.12). Therefore, this learning material can effectively be applied to provide an online learning platform for the manufacturer to improve the packaging production process and company marketing.

17:10-17:35

85544 | *Academic Performance of Medical Students: A Comparison of Face to Face and Distance Learning*

Desiree Daniega, Far Eastern University- Nicanor Reyes Medical Foundation, Philippines  
Isabella Gonzales, Far Eastern University - Nicanor Reyes Medical Foundation, Philippines  
Clark Loiuis Hatton, Far Eastern University - Nicanor Reyes Medical Foundation, Philippines  
Micah Angela Domingo, Far Eastern University - Nicanor Reyes Medical Foundation, Philippines  
Arlene Daro, Far Eastern University - Nicanor Reyes Medical Foundation, Philippines  
Froilan Conrad Bacungan, Far Eastern University - Nicanor Reyes Medical Foundation, Philippines

The COVID-19 global pandemic has impacted the dynamics of education and has moved school administrators and educators to seek alternative measures to educate students. The disturbance caused by resulting lockdowns has left students with their electronic gadgets, internet connection, and corners of their houses as their primary means and environment for learning. Distance learning then, presents unique challenges compared to traditional learning. The study was given Ethics approval. Retrospective cohort design was used. Participants included all regular Batch 2022 and 2023 medical students of FEU-NRMF Institute of Medicine enrolled in the first semester of second year medical education. Students who dropped any of the core subjects during the said semester were excluded from the study. Data collected were then encoded accordingly. Subject grades and NMAT scores were grouped into three categories: Scholar (grades from 1.0-1.75), Satisfactory (grades of 2.0-3.0) and Failed (grade of 5.0) for subject grades; Average (percentile score of 45 to 80), Above Average (percentile score of 81 to 90), and Outstanding (percentile score of 91 to 99+) for NMAT score. Binary logistic regression was used to compare academic performance of Batch 2022, face-to-face and Batch 2023, distance learning during their first semester of second year. Results indicated that the proportion of respondents who had scholar and satisfactory overall core course grade was not statistically different between the two learning methods. However, an in-depth exploration of grade components including but not limited to the major examinations, small group discussions, clinical pathological conferences and the shifting examinations could be done.

17:35-18:00

85567 | *Exploring Online Learning Among Taiwanese High School Students Post-Pandemic: Technology Usage, Motivation, and Effectiveness*

Hsiao-Ting Chien, Graduate Institute of Information and Computer Education, Taiwan  
Chih-ming Hsu, Chang Gung Memorial Hospital, Taiwan

This study examines the online learning of Taiwanese high school students post-pandemic, focusing on technology usage, learning motivation, and effectiveness. It aims to analyze the role of technology in addressing learning challenges and to understand students' skills, knowledge, and attitudes in a digital environment. A mixed-methods approach was used, combining literature review and survey questionnaires. Data was collected from 204 valid responses out of 211 distributed questionnaires. The survey explored nine variables, including proactive learning, digital media self-efficacy, and collaborative learning. Stratified sampling and factor analysis were conducted using SPSS 20.0. The KMO value was .832, and the total scale Cronbach's  $\alpha$  was .88. The study found significant gender differences in self-efficacy, experiential learning, and proactiveness. Males showed better proactiveness and self-efficacy. Female students with online learning experience performed better, as females tend to fear information technology more than males, but with learning and experience, females show better performance. Technology use for online learning is widespread among Taiwanese high school students, with high levels of proactivity and self-efficacy. These experiences enhance digital literacy, learning motivation, and collaborative abilities. Gender differences in various aspects of online learning warrant further investigation. High school students in Taiwan show strong motivation and self-efficacy in online learning, facilitated by proactive technology usage. These experiences enhance their learning effectiveness and digital literacy, though gender differences require further exploration.

18:00-18:25

88384 | *University Courses for Lifelong Learning: Developing Dynamic Capabilities in Digital Transformation and AI*

Siw Fosstenløkken, Oslo Metropolitan University, Norway  
Annita Fjuk, Digital Norway, Norway

This paper is based on data from university courses in lifelong learning. The courses offer competence development within digital transformation and AI (artificial intelligence) to people who work in small and medium sized businesses (SMBs). A digital and data-driven economy requires firms to adapt and innovate. The need to understand digitization and AI is now being challenged at a pace never seen before. In Norway, the government has invited the university sector to strengthen digital skills in working life through various continuing education measures. Therefore, courses have been implemented which are flexible and web-based. Central is the interaction between theory and practical tools to strengthen digital challenges at work. However, there is a lack of essential knowledge about how formal knowledge acquisition within digital transformation and AI develops the student's ability to initiate transformative measures in practice. This paper explores how dynamic capabilities are developed as a result of further education and what the effects are of enhanced digital skills in practice. The results show that the students developed three central dynamic capabilities: (i) sense new understanding and recognition of digital transformation and AI and discover new business opportunities, (ii) address and act on digital opportunities and (iii) influence, develop and plan for digital transformation. The paper contributes to the importance of combining theory and practice in further education so that people can quickly apply new skills into business. We also link academia and work-life more closely by helping to operationalize the national commitment to lifelong learning.



**16:45-18:25 | Room 703 (7F)**

# **Wednesday Onsite Parallel Session 5**

## **AI and Language Learning**

### **Session Chair: Leimin Shi**

**16:45-17:10**

88669 | *Exploring Bangladeshi Students' Acceptance and Usage of Chat-GPT for English Language Learning*

Dipty Rahman, American International University-Bangladesh, Bangladesh

M Hamidul Haque, American International University-Bangladesh, Bangladesh

ChatGPT, an advanced AI-powered chatbot, has become integral to teaching and learning globally, including prevalent adoption in Bangladeshi higher education. This paper intends to explore the factors behind the adoption and use of ChatGPT among the undergraduate students of Bangladesh for the purpose English language learning by developing a model based on the "Unified Theory of Acceptance and Use of Technology (UTAUT2)." The model is built by selecting seven predictors that project the behavioral intention and use behavior of ChatGPT. The data collected from the students at a private university in Bangladesh via an electronic form were analyzed using partial-least squares method of structural equation modeling. The findings reveal the proposed hypotheses are confirmed by the results and the best predictors/ dominant determinants. The study finally emphasizes the necessity for further exploration into the integration of AI tools in educational contexts, especially for English language learning.

**17:10-17:35**

88449 | *Enhancing Critical Thinking Through Reading in a Controlled Environment: A Study Using the BookRoll Tool*

Panadda Jaiboonlue, Bansomdejchaopraya Rajabhat University, Thailand

Wasan Na Chai, National Electronics and Computer Technology Center, Thailand

Nattapol Kritsutikul, National Electronics and Computer Technology Center, Thailand

Critical thinking is a vital skill in many aspects of a person's activities, particularly in education, where it enables students to analyze, reason, plan, and self-evaluate. This paper propose a controlled environment designed to train critical thinking through reading, helping students understand logical connections between sentences. This controlled environment is designed for learner's activities to assign several kinds of annotations including logical statement type, keyword and logical linking between sentences to the proper writing text by self-analysis under the supervision of coaches. By engaging in these activities, students can learn to recognize logical expressions and persuasive strategies in writing, gain insight into the author's cognitive processes, and apply these insights to improve their writing abilities. We enhanced the features of BookRoll, an e-book system developed by Kyoto University, to increase its efficiency and better support the tracking of students' reading behaviors. The system records various activities, including time spent on each page, highlighting keywords within sentences, and identifying logical connections between sentences, among other metrics. From experiments, the results showed that the environment helps to increase learning performance. The average precision and recall scores from tagging of the participants using this feature were higher than the participants not using the tool for 0.15 and 0.22, respectively. Moreover, the participants showed significant growth in thinking skills in terms of more correct analysis and critical thinking after using the tool. These results indicated that the thought analysis tool improved users' abilities to become more strategic planners and create more persuasive writing.

**17:35-18:00**

88364 | *The Use of AI Writing Tools by Students in Academic Writing: EFL Teachers' Perspectives*

Ashrafun Nahar, North South University, Bangladesh

Generative AI tools have opened a new era with their rapid advancements in language learning models, helping writers produce very engaging writing. Generative artificial intelligence (GenAI) tools have become increasingly prevalent in the realm of education, particularly in academic writing. However, there is a dearth of research exploring the perceptions, practices, and effects of AI in academic writing within the Bangladeshi context. This study aims to examine the causes and impacts of AI tools on students' writing as perceived by English as a Foreign Language (EFL) teachers. Employing a qualitative phenomenological research paradigm, the study conducted semi-structured interviews with EFL teachers. The findings reveal that students' use of AI tools is influenced by linguistic (semantic, syntactic, etc.) and extra-linguistic factors (lack of motivation, involvement, critical thinking skills, etc.), leading to predominantly negative impacts (diminishing creative and critical thinking skill, encouraging academic dishonesty, teaching practices etc.) on the quality of learning and the overall educational landscape. This research also seeks to identify policy implications by offering strategies to reduce students' reliance on AI tools in their academic writing endeavors.

**18:00-18:25**

83654 | *Enhancing Communicative Competence with ChatGPT: An Exploratory Study*

Leimin Shi, University of Wollongong, Australia

This exploratory study investigates the use of ChatGPT to enhance Communicative Competence for Chinese as a foreign language (CFL) learners. Since its introduction in late 2022, ChatGPT has garnered attention from researchers and educators, prompting investigations into its potential within language teaching and learning contexts<sup>1</sup>. Existing research has demonstrated ChatGPT's advantages, which include its capacity to generate customized teaching materials, inspire students to learn, and serve as a comprehensive AI assistant in the field of education. On the other hand, infrequent answer mistakes have decreased students' motivation to utilize AI as a language learning tool. In this study, CFL students with low language proficiency levels engage in student-ChatGPT interaction activities related to authentic subject content. Participants include learners enrolled in intermediate Mandarin subjects at an Australian university during the autumn and/or spring sessions of 2024, along with their teachers. Data collection involves anonymous questionnaires, individual student interviews, examination of student-ChatGPT communication records, and teachers' reflection journals. This study intends to contribute to pedagogical advancements by offering valuable insights into the effective integration of AI into language instruction, with a specific focus on developing students' Communicative Competence.

16:45-18:25 | Room 704 (7F)

# Wednesday Onsite Parallel Session 5

Primary & Secondary Education

Session Chair: Parama Kwangmuang

16:45-17:10

81381 | *Analysis of Student Difficulties in Determining the Main Idea and Supporting Ideas of Paragraphs*

Umi Nahdhiah, State University of Malang, Indonesia

Sri Untari, State University of Malang, Indonesia

Ratna Ekawati, State University of Malang, Indonesia

Shirly Rizki Kusumaningrum, State University of Malang, Indonesia

Radeni Sukma Indra Dewi, State University of Malang, Indonesia

This research was motivated by a problem about the learning difficulties of grade IV students of Sumbersari III Elementary School Malang, Indonesia in determining the main ideas and supporting ideas of paragraphs. This study aims to understand the process of student learning difficulties in identifying the main ideas and supporting ideas of a paragraph and find out the factors that cause students' learning difficulties. The research approach used is a qualitative approach. While the method used is a descriptive research method. The sample in this study was 26 grade IV students of Sumbersari III Elementary School Malang, Indonesia. Data in this study was collected through interviews, documentation, and observations related to the research problem studied. Interviews were conducted with four students and homeroom teachers of grade IV. The results of the analysis show that students have good abilities in determining the main sentence, but most students still have low abilities in the main idea, supporting ideas, and type of paragraph. Internal factors that causes students learning difficulties are low interest in reading, low learning motivation, limited reading ability, lack of confidence, and dislike of Indonesian subject. External factors that causes students learning difficulties are family environment factors and classroom management. It is hoped that these difficulties can be overcome by using appropriate and supportive learning strategies, and students' understanding of the structure and content of Indonesian text can be improved.

17:10-17:35

83158 | *Sleep Routine Among Grade 10 Learners in the Science Curriculum: Its Influence on Academic Performance in Biology, Chemistry, and Physics*

Kevin Client Matutes, Mindanao State University at Naawan, Philippines

Johana Mae Talledo, Mindanao State University at Naawan, Philippines

Mike Vincent Catubig, Mindanao State University at Naawan, Philippines

Kian Axel Sacabin, Mindanao State University at Naawan, Philippines

Marielyn Buado, Mindanao State University at Naawan, Philippines

Sleep quality and duration are crucial for adolescent learners due to their impact on academic performance, cognitive function, mental health, and overall well-being. This quantitative study examined the relationship between sleeping routines and academic achievement in biology, chemistry, and physics among 66 Grade 10 learners in the science curriculum. Respondents' sleep time, wake time, and number of sleep hours per day during a 5-month period were monitored, and results revealed that 97% of the respondents have inadequate sleeping habits. Students only sleep for an average of 6 hours and 18 minutes instead of 8 to 10 hours for people their age. Furthermore, regression models identified that both sleeping late and waking early have both positive and significant influences on their performance in biology and chemistry, and in biology and physics, respectively. This practice among students is alarming because compromising adequate sleep time for higher grades is not recommended since it can lead to negative effects on health, cognition, and behavior. Moreover, results support existing literature that indicates adequate sleep results in good school performance, as more sleep time is a positive predictor of better performance in chemistry and physics. Albeit the fact that there are several intrinsic factors and external influences that affect sleeping routines among adolescents, schools should help learners practice good study and sleeping habits, and efficient time management to avoid jeopardizing students' well-being for the short-term goal of higher grades.

17:35-18:00

85918 | *Digital STEM Teaching Modules Using Local Wisdom for Primary Science Teaching and Learning*

Rose Amnah Abd Rauf, University Malaya, Malaysia

The declining levels of achievement in STEM and the decreasing enrolment in STEM courses at the tertiary level are concerning trends. To address this issue, enhancing student engagement in STEM education is crucial, particularly through the integration of technology. As technology evolves, modern learners increasingly favour interactive learning methods. This study explores the development and implementation of digital science teaching modules that utilize local wisdom, aimed at making STEM education more relevant and engaging. The modules were designed guided by Mayer's cognitive theory of multimedia learning, aligned with the science curriculum and the engineering design process as the instructional approach. The modules were deployed through a mobile application, providing localized digital resources using problem that is localize to the community. A pilot study involving 40 teachers was conducted to evaluate the effectiveness of these modules using survey and interviews. Data was analysed thematically. Themes that emerged were; cultivate problem solving skills using local wisdom; nuance understanding; and enhanced student-teacher engagement. This paper presents the development process of these digital modules, their alignment with educational standards, and their impact on teaching and learning, highlighting the potential for localized digital resources to support and invigorate STEM education. The implication of using local wisdom as the main resource content makes learning more meaningful for the students and helps teachers to be more effective because it is more personalise.

18:00-18:25

88170 | *Fostering Computational Thinking Through a Constructivist Micro:bit Learning Package: An Experimental Study with Elementary School Students*

Parama Kwangmuang, Khon Kaen University, Thailand

Romwarin Gamlunglert, Khon Kaen University, Thailand

Supharada Bubpha, Khon Kaen University, Thailand

Computational thinking skills are crucial for students in the digital age, yet effective methods for developing these skills in elementary education remain challenging. This study aimed to develop and evaluate a micro:bit-based learning package for enhancing computational thinking skills among elementary students, and investigate its effects on students' computational thinking abilities. A Type 1 Developmental Research design was employed, involving the design, development, and evaluation of a learning package grounded in constructivist principles. The package, comprising seven key components including authentic problem situations and a computational thinking skills center, was evaluated by 15 experts in educational technology, computer science education, and elementary education. Subsequently, 30 fifth-grade students from Ban Thum School in Thailand participated in a four-week implementation of the package. Expert evaluation revealed excellent overall quality of the learning package ( $M = 4.52$ ,  $SD = 0.27$ ), with high ratings for design, content, and media components. Student assessment showed improvement in computational thinking skills, with overall performance surpassing the 75% criterion ( $M = 76.89\%$ ). Students demonstrated significantly stronger proficiency in decomposition compared to other skills ( $p < .001$ ). All four computational thinking skills were significant predictors of overall performance, with decomposition emerging as the strongest predictor. This study contributes a novel, comprehensive approach to fostering computational thinking in elementary education, integrating micro:bit technology with constructivist learning principles. The findings suggest potential for widespread adoption in elementary education, while highlighting areas for future refinement to balance skill development across all aspects of computational thinking.

**16:45-18:25 | Room 705 (7F)**

# **Wednesday Onsite Parallel Session 5**

## **Assessment Theories & Methodologies**

### **Session Chair: Badri Adhikari**

**16:45-17:10**

85625 | *Assessing Cognitive Abilities and Ensuring Task Acceptability with Virtual Reality*

Mridula T V, Indian Institute of Technology Madras, India

Manivannan M, Indian Institute of Technology Madras, India

Traditional paper-based cognitive assessments for children are often unengaging and misrepresents cognitive abilities. Virtual Reality (VR) surpasses these disadvantages by creating an immersive and engaging environment. This study aims to develop a methodology to assess attention, processing speed, and cognitive flexibility using VR-based tasks while also evaluating the acceptability of these tools among students. Participants identified target colours or shapes from 3D distractors, similar to traditional paper-pencil tasks. Usability, acceptance, accuracy, and response times (RT) were evaluated. Thirty neurotypical students aged 8-13 completed an 8-minute VR task involving stationary and moving colours and shapes, tested twice. In the colour identification task, participants received an audio cue of the target colours followed by stimuli. RT initially increased and stabilised, then rose with faster stimuli, indicating a higher cognitive load. Four trials in the shape identification task showed improved accuracy and RT, indicating efficient memory switching and faster target identification. Quantitative data revealed overall improvement in RT, suggesting adaptation and learning, with peaks indicating increased task difficulties. RT and accuracy improved with age. Qualitative analysis indicated that VR enhanced student engagement and motivation, demonstrating its reliability and effectiveness for evaluating cognitive abilities. Usability and acceptance were rated highly, with no adverse effects reported. This study suggests VR can revolutionise educational assessments by offering a supportive and engaging environment, reducing distractions, and providing standardised conditions. It lays the groundwork for future research into VR's applications for assessing children with neurodevelopmental disorders, including learning disabilities, highlighting its potential to enhance inclusive educational practices.

**17:10-17:35**

83558 | *Why Does Evidence-based Scheme of Developing Non-cognitive Abilities Matter in AI Era?*

Terukane Furuya, Dalton Tokyo Middle and High School, Japan

Non-cognitive abilities such as GRIT is easy to measure but hard to specify why and how each non-cognitive ability can be developed. In secondary education from grade 7 to 12, we can imagine that a variety of activities such as Project-based-learning and extra-curricular activities influenced non-cognitive abilities such as leadership, collaborative teamwork, and critical thinking in interwoven ways. In Dalton Tokyo Middle and High School, a NY-based Dalton Plan school in Japan, we have built an evidence-based educational evolution scheme in non-cognitive ability enhancement. It is a comprehensive analytical process of measuring and specifying pedagogical impacts on non-cognitive abilities through intensive assessment analysis of the depth of learning. For example, the growth in empathy and listening behavior has bigger and wider impacts on overall non-cognitive ability development than other factors, enabling lower-tier students to surpass top-tier students. We specified that the experiences of learning-from-failure directly and significantly affected the growth in empathy and listening score more than other factors, for example those who join entrepreneurship competition, lose awards, but positively learn from challenge rather than being depressed. In this presentation, we will present the method and improvement process of evidence-based evolution scheme including analytical frameworks, students' reflection process, AI's measurement trial on the depth of learning, and teachers' learning process of evolving curriculum based on the analysis.

**17:35-18:00**

82833 | *Investigating the Effectiveness of ChatGPT in Language Assessment*

Maryam Alghafri, University of Technology and Applied Sciences, Oman

Maha Aldaree, University of Technology and Applied Sciences, Oman

This study investigates the effectiveness of employing Artificial Intelligence (AI), notably ChatGPT, in language assessment. With the continuous advancement and integration of AI technology in education, there is an increasing interest in its potential to enhance language learning and assessment. In this research, ChatGPT was used to evaluate 15 essays written by English students, offering detailed feedback and assigning grades based on predetermined criteria in a rubric. Subsequently, an experienced senior teacher specializing in English writing assessed the results. Utilizing a qualitative approach, the study conducted an in-depth interview with the teacher to glean insights into the reliability and effectiveness of ChatGPT's evaluation. The findings revealed a notable correlation between the grades assigned by the teacher and ChatGPT for the set of essays. Furthermore, the teacher interviews underscored ChatGPT's utility in alleviating teachers' workload, albeit acknowledging its partial replacement of human teachers. This study advocates for AI as a complementary tool to human instruction, emphasizing the indispensability of human expertise for comprehensive feedback. It suggests a collaborative approach between AI and human teachers to enhance writing instruction and evaluation.

**18:00-18:25**

85579 | *How to Let Students Use AI? Transparent and Reflective AI Usage with Process Feedback*

Badri Adhikari, University of Missouri-St. Louis, United States

As generative AI can accelerate students' learning, some educators advocate for the unrestricted use of AI. However, others are concerned that this over-dependence on AI could hinder the development of independent and critical thinking skills. Irrespective of the level of AI usage, the key to effective learning lies in the process students employ to reach their conclusions. This emphasis on the student's process is well-established in educational literature. Consequently, students require educational tools that provide insight into their working process, including their process of AI usage. These tools could display the time a student spends on a task or the frequency and timing of their use of generative AI. Such process-revealing tools offer two significant benefits: they impart data that enables students to self-reflect and enhance their meta-thinking skills, and during the course promote academic integrity. These tools also benefit both students and teachers by offering immediate access to crucial information such as instances of copy-pasting and time dedicated to revision after drafting. While numerous process-oriented tools exist, this talk will focus on a free platform called Process Feedback, and the exploration of the strategies and best practices for integrating such tools into classrooms. The talk will conclude with an examination of case studies and research findings to learn how implementing process-oriented tools can enhance learning outcomes and grading efficiency.



16:45-18:25 | Room 707 (7F)

# Wednesday Onsite Parallel Session 5

## Education & Difference

### Session Chair: Nga Yui Tong

16:45-17:10

82417 | *Exploring the Predictors of Teachers' Intentions Towards Responsive Inclusive Education*  
Masud Ahmmed, Victoria University, Australia

Over the past three decades, global education policy has shifted towards Inclusive Education (IE), aiming for equitable access to education regardless of learners' differences. Bangladesh, like many developing countries, has embarked on IE reforms to integrate traditionally excluded groups into its regular education system. Teachers' negative attitudes pose a significant barrier to IE policy implementation, prompting this study to employ the Theory of Planned Behavior (TPB) to investigate in-service teachers' attitudes. Through surveys and focus group interviews, the research examines how teacher attitudes, efficacy in implementing inclusive practices, and perceptions of school support influence their intentions to include students with disabilities. Findings reveal that teacher attitudes, efficacy, and perceived school support significantly predict teachers' intentions to include children with disabilities in their classes. Despite neutral attitudes towards inclusion and moderately positive efficacy, perceptions of school support are consistently negative. Demographic factors also influence teacher attitudes and efficacy. Thematic analysis of interviews uncovers teachers' conflicting intentions, balancing skepticism about full inclusion's success with professional and social support for it. Understanding these influences is crucial for successful IE implementation. This study contributes by elucidating relationships between investigated variables and emphasizing the importance of comprehending teacher behaviour in IE reform.

17:10-17:35

80937 | *Teaching Students with Special Needs Within the Context of Psychoeducational Assessment*  
Hansel Hope Perez, Our Lady of Fatima University, Philippines  
Ariel Co, Our Lady of Fatima University, Philippines  
Bea Mae Aguenza, Our Lady of Fatima University, Philippines  
Ayessa Clarisse Capco, Our Lady of Fatima University, Philippines  
Shairyn Mae Lequin, Our Lady of Fatima University, Philippines  
Earl Ivan Paul Unating, Our Lady of Fatima University, Philippines

Educators play an important role in classroom instruction and students' learning progress. Though there are teaching strategies to help students learn, there are educators who experience difficulties in teaching students with special needs. This study aims to know the difficulties of special education teachers in implementing specially designed instruction for students with special needs who have and do not have psychoeducational assessment, as well as their differences in classroom performances. This study utilized the quantitative approach. Thirty educators in selected schools in Antipolo City, Philippines who handle students with special needs participated and eight educators answered interview questions. The data collection results indicate that there are difficulties in implementing specially designed instruction for children with special needs who do not have psychoeducational assess. The content, methodology, and delivery shows significant difficulties with the p-value of 0.001. Moreover, the results show the classroom performance of students in terms of task behavior has a significant difference since the p-value of 0.027. In terms of participation, students with psychoeducational assessment perceived to perform better than without psychoeducational assessment since the p-value of 0.030. For the meeting learning objectives, it shows a significant difference between with and without psychoeducational assessment with the p-value of 0.008. Teachers find it difficult to provide every student appropriate instruction to support their learning. Despite the fact that their students do not receive psychoeducational assessments, they are still able to create and come up with teaching strategies because they have experience working with students who have special needs.

17:35-18:00

88615 | *Real-Time Parent Training for School Transition Support of Children with Special Education Needs from Preschool to Mainstream School*  
Nga Yui Tong, Hong Kong Metropolitan University, Hong Kong  
Wing Yee Ho, Hong Kong Metropolitan University, Hong Kong

This study focuses on a transition program in Hong Kong that involves both children with special education needs transitioning to mainstream primary schools and their parents. A transition program was conducted over 4 months, consisting of 13 children's sessions and 6 parents' sessions. This study explores how parents make use of the real-time parent training sessions to perceive the needs and difficulties of their child's transition to primary school and the impact of such program on children's transition. The Strengths & Difficulties Questionnaire (SDQ) measurement tool and focus-group interview methods were used. 11 parents completed the SDQ at the start and end of the transition program, and semi-structured interviews were carried out at two months and four months after the transition program. Data were analyzed using reflective thematic analysis. Both parents and children were not ready for the transition at the beginning of the program. The major concerns were children's lack of social skills and self-help skills, and their reluctance to enter primary school. Along the transition program, parents' reflected that children could better understand teachers' expectations on classroom order and routine and were able to follow teachers' instruction. All parents were satisfied with the transition program and especially valued the live streaming of children's learning. This study calls for a holistic approach when making transition plans for young children with SEN, by recognizing the role of parents and equip them with better expertise and resources through real-time parent training.

18:00-18:25

88655 | *Career Education Framework for Young Adults with Autism and/or Intellectual Disabilities in Postsecondary Education*  
Lisfatul Fatinah, University of Tsukuba, Japan  
Hiroki Yoneda, University of Tsukuba, Japan

The purpose of this study is to investigate the postsecondary education (PSE) career education framework for young adults with autism and/or intellectual disability (ID). The study consists of three sections. First, a systematic literature review identifies current career education programs for young adults with autism and/or ID. The review included 36 peer-reviewed English-language publications, selected from 535 sources using Boolean operators, covering the period from 2000 to 2024, with a focus on studies conducted in Japan, Indonesia, and the USA. Second, the semi-structured and in-depth interviews were conducted with 25 young adults with autism and/or ID who graduated from PSE and are experiencing conventional employment and self-employment. Third, the questionnaire was administered to 15 employers working with young adults with autism and/or ID and 12 parents involved in the self-employment of their children with autism and/or ID. The questionnaire assessed 46 items across eight aspects of employability skills—basic literacy and numeracy, critical thinking, leadership, management, interpersonal skills, information technology skills, systematic thinking, and work ethic—and compared the skills needed for conventional employment and self-employment of young adults with autism and/or ID. The result suggests the potential framework for career education in postsecondary education aims to provide early, continuous vocational training, tailored specific skill development, and workplace support for young adults with autism and/or ID while promoting self-employment as a viable option. This holistic approach seeks to address skill gaps and enhance employability by creating inclusive and supportive environments.

16:45-18:25 | Room 708 (7F)

# Wednesday Onsite Parallel Session 5

## Educational Research, Development & Policy

### Session Chair: Astrid Schmied

16:45-17:10

85553 | *Cargo Cult Schooling: Understanding the Concept of Mimetic Isomorphism in the Context of Education Policy and Implementation*  
Richard McLawhorn, National Taiwan Normal University, Taiwan

How do we differentiate the emulation of structural factors in schooling from sound institutional design and policy? A more nuanced understanding of educational institutions as institutions provides the opportunity of new critical insights into examining both how and why policies and programs work within education. Importing policies into a new cultural and functional context is always fraught, but modification and recontextualization are vital in our increasingly globalized world. As it stands, education research and policy do not adequately utilize tools of analysis common in other fields. Concepts of isomorphic pressure or mimicry have a great potential value in explaining the real problems of contemporary schooling, and are yet absent. Teacher professional development time, higher administration involvement, and overall school structuring are useful elements of understanding schools, but they run the risk of being misunderstood as the causes of school success as opposed to correlates. This means the proliferation of school policies which seek to only emulate successful policies of other locales, often with little consideration of how or why such policies exist in the first place, thus creating a mimetic isomorphism. Understanding this as a logical error inherent to the intersection of observation and institutions provides valuable opportunities for the advancement to the field of educational research. This research provides a theoretical framework through which concepts like isomorphism and institutional theory can be directly applied to how we observe and understand schooling.

17:10-17:35

84486 | *e-training with AI on Preparing Articles for International Academic Conferences and Publication in International Journals*  
Theerapong Maneepon, King Mongkut's University of Technology Thonburi, Thailand  
Narong Mungkung, King Mongkut's University of Technology Thonburi, Thailand  
Suchapa Netpradit, King Mongkut's University of Technology Thonburi, Thailand

This research aims to create e-training with AI prompts for international academic conferences and publication in international journals. To determine the efficiency of e-training. Find the effectiveness of the Learner's success through improved e-training and find satisfaction with e-training. The methodology used in the research consists of 5 main steps: analysis, design, course development, e-training development, and evaluation and summary, using AI prompts to help carry out each topic according to Interactive Multimedia Computer-assisted Instruction (IMMCAI principles) to find Interval-test/Post-test (E1/E2), effectiveness, and Satisfaction. The sample group consisted of staff and students—faculty of Industrial Education and Technology (FIET), King Mongkut's University of Technology Thonburi (KMUTT), 30 people. The evaluation test results found that the e-training was created with an efficiency of 83.75/81.58 according to the specified criteria, which is 80/80. The training achievement of the trainees increased by 30.75 percent. The content quality score was equal to 4.11 and the participants' satisfaction with the online training was 4.38, which is considered good. It can be concluded that e-training for publishing articles can be used for individual learning and development. There will be a high number and quality results from AI prompts to help work more accurately, conveniently, and quickly.

17:35-18:00

85568 | *Revealing PISA Research Trends: A Bibliometric Analysis from 2000 to 2024*  
Yurou Song, National Tsing Hua University, Taiwan  
Chuan-Chung Hsieh, National Tsing Hua University, Taiwan

With the release of the latest results from the Programme for International Student Assessment (PISA 2022), analyzing past research trends and hotspots on PISA helps us better analyze and apply the new data, ultimately promoting global education development. This study uses bibliometric analysis, leveraging the Web of Science database with the search terms "Programme for International Student Assessment" and "PISA", covering the period from 2000 to 2024, and includes 628 journal articles. CiteSpace software was used to visualize the data and create scientific knowledge maps. The results show that the USA, China, Germany, the UK, and Australia have significant influence in PISA research, with key institutions including the University of London, University College London, Institute of Education, and Beijing Normal University. Current major research directions include student achievement, socioeconomic composition, affective characteristics, growth mindset, and high motivation. Research hotspots are academic achievement, motivation, and educational engagement, while emerging topics include scientific literacy, achievement, schools, engagement, culture, and ICT use. Future research should explore PISA's multifaceted impacts, particularly in digital education and socioeconomic disparities. This study offers a comprehensive overview of PISA research, providing valuable insights for educators, policymakers, and researchers to enhance global educational equity and performance.

18:00-18:25

88446 | *A Framework for Research Translation in the Science of Learning Field*  
Astrid Schmied, Nanyang Technological University, Singapore  
Lorraine Ow, Nanyang Technological University, Singapore  
Radiah Maria Belak, Nanyang Technological University, Singapore  
Uma Natajaran, Nanyang Technological University, Singapore  
Aishah Abdul Rahman, Nanyang Technological University, Singapore

The Science of Learning (SoL) field involves the scientific study of the underlying bases of learning across developmental stages and contexts through the intersection of theories and methods of diverse disciplines, such as neuroscience, psychology, education, and many others. To optimize successful human learning, SoL seeks to connect research, practice, and policy; however, frameworks for effective research translation are scarce and operationalized too broadly to serve context-dependent needs. This project focuses on developing a sustainable, systemic framework to accelerate research translation in the Science of Learning in Education Centre at the National Institute of Education in Singapore. We assembled a local, cross-institutional team of eight members and deliberately leveraged (1) a Faculty Learning Community as a mechanism to promote training and professional development, (2) co-creation as a guide to framework development, (3) a multi-disciplinary approach for content building, and (4) interdepartmental collaboration as a strategy to facilitate scaling. Here, we describe our preliminary research translation framework incorporating characteristics of the different (1) stages, (2) processes, (3) stakeholders, (4) enablers and brokers, and (5) diverse routes to translation that might be suitable for different end-users. After further testing and validation via ad hoc indicators, this framework may be critical to inform the local community, and the Ministry of Education in Singapore in particular, on SoL evidence-based findings and related application of novel interventions in a timely manner. The framework may also have broader implications for international contexts, circumstances, or settings for institutional systemic change.

## Notes

[illegible]





# Thursday, November 28

## Parallel Sessions

**All times are Japan Standard Time (UTC+9)**

Abstracts appear as originally submitted by the author. Any spelling, grammatical, or typographical errors are those of the author.

09:30-11:10 | Room 601 (6F)

# Thursday Onsite Parallel Session 1

Challenging & Preserving Culture, Inter/Multiculturalism & Language

Session Chair: Joon K. Kim

09:30-09:55

84232 | *Challenges and Opportunities of AI in Revitalizing and Preserving Endangered Languages in Kenya*  
Hesborn Ondiba, Tokyo University of Science, Japan

In Africa, languages are crucial for preserving and transmitting cultural heritage, evident in traditions such as songs, proverbs, riddles, and tongue twisters. However, this linguistic diversity is rapidly diminishing. Kenya, home to over 42 ethnicities and about 55 unique languages, faces the endangerment of at least eight languages, including Terik, El Molo, Ogiek, Omotik, Bong'om, Sogoo, Suba, and Yaaku, predominantly spoken by those over 50 years old. This situation prompts the question: Can AI be leveraged to revitalize these languages and preserve their indigenous knowledge? Natural Language Processing (NLP) within AI offers tools for enhancing communication, translation, and education in diverse languages. This study explores the challenges and opportunities of using AI to revitalize and preserve endangered languages in Kenya. The challenges include limited skilled professionals, lack of data infrastructure, ethical concerns, unclear government policies, poor internet connectivity, and user apprehension. Despite these obstacles, AI presents significant opportunities: improving education and communication through NLP, boosting digital resources, creating economic opportunities, and empowering young speakers of endangered languages. Thus, AI has the potential to play a transformative role in safeguarding Kenya's linguistic heritage.

09:55-10:20

84124 | *Transforming Indigenous Formal Basic Education Through Implementing a Culturally Sustaining Pedagogy*  
Adeva Jane Esparrago-Kalidas, Ateneo de Manila University/ Xavier University - Ateneo de Cagayan, Philippines

The "othering" of Lumad and indigenous communities in the Philippines continues in formal education as it is deeply entrenched in the country's colonial past. This paper argues that the integration of Indigenous Knowledge Systems and Practices (IKSPs) in formal basic education (BED) is the key to decolonizing it. Through using narrative inquiry, this paper gained significant insights from five teachers of indigenous learners from Bukidnon, Philippines. Major themes emerging from the study include affirming the school as a mediator of and for indigenous learning, discovering opportunities for bridging gaps between the Lumad context and the structure of formal education through implementing a Culturally Sustaining Pedagogy, and recognizing the indigenous context to reclaim their identity and agency. It suggests that teachers are the driving force of decolonization in the classroom as they facilitate critical centering on dynamic community languages, integrate indigenous learners' valued practices and knowledges in the classroom, historicize and contextualize content and instruction, build students' capacity to contend with internalized oppressions, and attempt to curricularize all the above in learning settings while considering their personal challenges and limited support. Based on teachers' narratives, students tend to be more responsive and interested when they are exposed to IKSPs in the classroom, asking more questions and giving examples from their own experiences. They also show eagerness and excitement in learning as their experiences are affirmed and valued. These are concrete steps toward decolonizing the BED as they contextualize and ground indigenous learning, focus on the individual, and value knowings and heritage.

10:20-10:45

82178 | *Environmental Empathy Through the Paradigm of Postmodernism Based on Indigenous Peoples' Local Wisdom*  
Piki Setri Pernantah, Universitas Pendidikan Indonesia, Indonesia  
Nana Supriatna, Universitas Pendidikan Indonesia, Indonesia

Environmental empathy can be viewed as a moral movement that aims to increase awareness and concern for various environmental problems and issues. This movement encourages changes in the behavior of people who were previously antipathic or indifferent to the environment to empathize with the environment. The purpose of this study is to know and analyze the reality of society in empathizing with the environment and the implementation of environmental empathy through local wisdom in Indonesia in the perspective of postmodernism which can also be a source of learning. This research uses a post-qualitative approach by conducting field research to various indigenous peoples. The results of this study can be understood as follows: (1) the reality of the community being able to maintain and empathize with the environment through the values of local wisdom that are still believed and carried out in everyday life so as to minimize problems or damage to the environment; (2) The implementation of environmental empathy through local wisdom in the perspective of postmodernism is carried out in various activities or traditions while still maintaining the previous culture that has an impact on environmental conservation. This view emphasizes the plurality of values and diverse views of society about the environment, but with a good goal of maintaining a balance of relations between humans and the environment (nature).

10:45-11:10

84879 | *Multicultural Education Nexus: Immigration, Ethnic Enclaves, and Stratification*  
Joon K. Kim, Seoul National University, South Korea

This article addresses the challenges of multicultural education in South Korea (hereafter "Korea") in light of the recent trends in formations of migrant populations and ethnic enclaves. The limited types of migrants allowed to work and settle in Korea contributed to occupational segregation and hyper ethnic concentrations in certain neighborhoods, thus adding to the challenges of developing and implementing multicultural education. The combined forces of occupational stratification, the lack of adequate political rights and limited economic viability, and the ethnic concentration of neighborhoods are contributing to an increasing social stigmatization of migrant-background populations and posing unique challenges for multicultural educators. Using ethnographic fieldwork and narratives of multicultural teachers in cities with significant concentration of foreign, ethnic populations, this study assesses the limitations of multicultural education in accomplishing its stated objectives and addresses diverse concerns about the future prospect of social cohesion and integration in Korean society.

**09:30-11:10 | Room 603 (6F)**

# **Thursday Onsite Parallel Session 1**

## **Curriculum Design & Development**

### **Session Chair: Tendai Chikweche**

**09:30-09:55**

81312 | *Illiteracy Eradication Strategies in Indonesian Rural Schools Using the SSM (I Love Reading) Curriculum*  
Astina Hotnauli Marpaung, Yogyakarta State University, Indonesia

This research was conducted through an assessment and analysis of the implementation of the SSM curriculum in eradicating illiteracy and identifying the factors causing illiteracy in Indonesian rural schools. The research method used was qualitative research with a case study approach. Data collection was conducted through in-depth interviews with rural teachers, local teachers, school principals, parents, and high grade students who were still illiterate. In addition, direct observation and analysis of relevant documents were also conducted. Based on the research that the author has conducted, it was found that several factors influence illiteracy that occurs in rural schools in Indonesia. The lack of educators and the lack of infrastructure to obtain reading materials are the main factors that make people illiterate. Another factor is the low awareness of the importance of education so that parents force their children to leave school and go to the forest to hunt and take sago. The results of the SSM curriculum implementation show an increase in community participation in learning because it uses a phonic approach, picture storybook media and student exercise sheets that can be created by teachers with local wisdom media. This research is expected to contribute to the eradication of illiteracy in Indonesian rural schools by using an effective curriculum for rural students.

**09:55-10:20**

85525 | *Comparative Approaches in Indigenous Education Curriculum Design and Development*  
Taymour Bouran, Sophia University, Japan

This article summarizes a model of curriculum design and development in Indigenous education. It argues that comparative education approaches are a necessary step for shaping a curriculum that engages with indigenous education and post-conflict affiliated contexts. This article focuses on the case studies of the Ainu and Māori peoples, indigenous to Hokkaidō, Japan and New Zealand respectively. The methodology attempts to demonstrate a model through the collaborative efforts of the author, employed at a United World College school following the International Baccalaureate program, and Matt Cotter, who teaches Ainu and Māori studies at Hokusei Gakuen University in Sapporo, Hokkaidō. The purpose of this article is to showcase a curriculum map produced by our collaboration and respective professional experience, as well as engaging with theoretical frameworks such as Paulo Freire's Pedagogy of the Oppressed (1970) and Kuan-Hsing Chen's Asia as Method (2010). This form of data collection highlights the comparative approach as a transformative worldview study as stipulated by John W., and David J. Creswell (2018); emphasizing research validity procedures such as researcher reflexivity, prolonged engagement in the field, and collaboration to critically analyze hidden assumptions about how the historical context, forces, and factors are interpreted, read, and constructed into education systems. The significance of this article has regional and international implications for teacher professional development, because comparative education is employed as a means to explain an education system that fully examines the strengths and weaknesses of a curriculum (Adamson, Bob and Morris, Paul, 2014; Kazamias, Andreas M., 2001).

**10:20-10:45**

85395 | *From Paternalism to Partnership: Addressing the Saviour Complex in Service-Learning Programmes in Singapore's Higher Education*  
Gautham S/O Vijayan Kumaran, Harvard University, United States

Service-learning, as a core component of experiential learning, involves student collaboration in real-world contexts, allowing them to apply knowledge and engage with communities meaningfully (Karoff et al., 2017; Furco, 2001; Higgins, 2009). Despite good intentions, service-learning can sometimes unintentionally result in the saviour complex when students adopt a top-down approach and assume they know best for the community without proper engagement or understanding. This qualitative study hence aims to investigate how service-learning programmes in higher education can foster socially responsible leaders while addressing the saviour complex—an attitude that can impede genuine community engagement. By focusing on Singapore, particularly NUS College, as a case study, this research is a long-term project that hopes to fill a gap in understanding the mitigation of the saviour complex within service-learning in Singapore, drawing on Transformative Learning Theory (Mezirow, 1991; Mezirow, 1997), Critical Pedagogy (Freire, 1970), and Cultural Humility (Tervalon & Murray-García, 1998). Employing grounded theory methods through qualitative surveys and focus group discussion with students, the research seeks to determine the prevalence and impact of the saviour complex and how to mitigate paternalistic attitudes, in NUS College. Through this oral presentation, I hope to provide insights into best practices for service-learning curricula that effectively address and overcome the saviour complex, enhancing ethical and impactful student engagement in community service projects and fostering sustainable, equitable partnerships and how these strategies can transition students from a paternalistic mindset to one of mutual respect and empowerment (Morris, 2020; Collins et al., 2016; Larsen, 2017).

**10:45-11:10**

80897 | *Reimagining the Student Voice in a Three-Way Partnership Curriculum Development of Problem-Solving and Critical Thinking Skills*  
Tendai Chikweche, Western Sydney University, Australia  
Hossain Mohammed, Western Sydney University, Australia  
Munir Hossain, Western Sydney University, Australia

Integrating students as curriculum partners in higher education has attracted attention centred on the authenticity and validity of student partners' expertise in curriculum development. Extant literature has broadly covered the pros and cons of working with student partners in curriculum development, and from this discourse, other research strands have emerged. Our paper reports on insights from implementing a three-way curriculum development partnership involving student curriculum partners, industry partners and academic faculty experts to develop an innovative curiosity learning pod to develop problem-solving and critical thinking skills for a trans-disciplinary cohort of students at an Australian university. We reinforce the importance of the student voice in partnership pedagogy. The project is set within a context of feedback from students and employers citing a lack of problem-solving and critical thinking skills that can be used across different disciplines, impacting students' work readiness to address real-world problems. Key insights from the paper include: (1) the importance of strategic framing of the curriculum development objective; (2) the need for a diverse trans-disciplinary student curriculum partner, an understanding of the complexity of the notion of student's voice in the co-creation process; (3) managing the dynamics of industry experts' input and their interaction with student partners; (4) managing expectations of all the partners; (5) challenges of getting institutional support or buy-in for the project and integrating the learning pod into an ongoing course.



09:30-11:10 | Room 604 (6F)

# Thursday Onsite Parallel Session 1

## Curriculum Design & Development (Workshops)

### Session Chair: Denese Wolff-Hilliard

09:30-10:20

85176 | *Quality OER with Universal Design for Learning (UDL) Principles and Strategies*

Alexander Reid, California State University Bakersfield, United States

Elaine Correa, California State University Bakersfield, United States

Universal Design for Learning (UDL) is a framework that aims to improve and optimize teaching and learning by providing multiple means of representation, engagement, and expression (Center for Applied Special Technology, 2018). Scholarship consistently demonstrates that the application of UDL practices improves the quality of learning experiences for students of all ages (Dewi et al., 2019). This workshop is designed to provide educators with strategies for integrating UDL principles into their pedagogical practices, thereby creating inclusive learning environments. Additionally, participants will learn about open educational resources (OER) and how to integrate UDL into OER development to accommodate diverse learners' needs.

#### Workshop Objectives:

1. Understand UDL Principles: Participants will be introduced to the three main principles of UDL (e.g., engagement, representation, and action & expression) and how they can be applied in educational settings to diverse student populations.
2. Practical Application: Through interactive activities and collaborative discussions, participants will explore how to implement UDL strategies in their lesson planning and classroom management.
3. OER Development: Educators will learn how to develop OER that reflects UDL principles, ensuring accessibility for students with varying abilities and learning styles.

The integration of the UDL framework into pedagogical practices supports a more equitable and innovative educational landscape. By incorporating OER into UDL practices, education also becomes more affordable, accessible, and sustainable. The workshop will foster a community of practice, encouraging participants to share their experiences and resources. Participants will receive the necessary tools to create more inclusive learning environments by putting OER into action.

10:20-11:10

88404 | *Who's on First? What's on Second Base? and Getting Our Students Home Today*

Denese Wolff-Hilliard, Houston Christian University, United States

Tia Caster, Houston Christian University, United States

Our classrooms mirror baseball teams, where each student, like a player, possesses distinct strengths and challenges, contributing to a diverse and vibrant educational environment. First-in-family students, who make up more than half of the enrolled population in American higher-education institutions, often face unique hurdles—academic struggles, financial pressures, and social isolation—that can impact their success. Yet, with the right coaching and playbook, these students can become all-stars in their educational journey. This workshop will focus on strategies to differentiate instruction and support first-in-family students, helping them build cultural capital and a sense of belonging. Participants will explore ways to restructure the lesson design to address time constraints, such as using multiple resources, materials, and technology. They will look for areas of assumed knowledge in directions and lesson design to provide more engaging and effective learning experiences and meet first-in-family college students' diverse needs and learning styles. Building rapport, creating a supportive classroom culture, and providing specific instructional techniques will help first-in-family students strengthen their knowledge, develop confidence, and experience more academic success.



09:30-11:10 | Room 605 (6F)

# Thursday Onsite Parallel Session 1

Mind, Brain & Psychology

Session Chair: Aneesah Nishaat

09:55-10:20

81347 | *Moral Disengagement as a Predictor of Bullying Behavior of Adolescent Students*  
Chrisanta Kezia Yemima, Yogyakarta State University, Indonesia

With the growth of eras and different educational systems from time to time, things are different phenomena that occur especially between peers. Adolescence is an age of self-discovery where in this phase teenage students will explore a lot of behavior that is considered extraordinary to be able to do. There are external and internal influences that make teenagers without thinking to carry out all the behavior that is considered acceptable to do with their peers. One phenomenon that is quite familiar and often occurs among teenagers is bullying. This research aims to find out whether moral disengagement can be a predictor of bullying behavior among teenagers in Surakarta. The method in this research is quantitative with linear regression analysis using SPSS for Windows 25, with a purposive sampling technique. The sample in this study was 60 students from a total population of 132 teenage students with an age range of 15 to 17 years. The questionnaire was distributed using Google forms. The results in this study show that Moral disengagement can be a predictor of Bullying behavior with the results  $\alpha = 0.04$  ( $p < 0.05$ ) and The R square value is 0.133. This shows that there is an influence of moral disengagement on disclosure of 13.3%, and other factors have an influence of 86.7%.

10:20-10:45

82749 | *Uncovering How Female High School Students Solve Statistics Problems Through Metacognitive Regulation*  
Kiki Henra, Universitas Negeri Surabaya, Indonesia  
I Ketut Budayasa, Universitas Negeri Surabaya, Indonesia  
Ismail Ismail, Universitas Negeri Surabaya, Indonesia

Awareness of regulating one's cognitive processes is important in problem-solving tasks. Through a case study design with a qualitative approach, this research examines the metacognitive regulation strategies used by female high school students in solving mathematics problems. A problem-solving task design with statistics material triggered female students' metacognitive knowledge activities. The study utilized semi-structured interviews with a problem-solving task-based Metacognitive Awareness Inventory protocol to capture students' reflective insights and thought processes as they engaged in statistics problems. The results illustrated that female students used planning, monitoring, and evaluation in each problem-solving stage. Feminine female students predominantly used planning and monitoring knowledge at each stage of understanding the problem, devising a plan, and carrying out the plan. Female students control the cognition results using evaluation at the looking back stage. These findings contribute to a deeper understanding of how metacognitive regulation helps female students' problem-solving process in the context of statistics materials.

10:45-11:10

84605 | *Understanding the Impact of Sensory Processing Sensitivity on Big Five Personality Traits in Nepalese University Students*  
Aneesah Nishaat, Higashi Nippon International University, Japan

This study investigates how Sensory Processing Sensitivity (SPS), characterized by heightened sensitivity, deeper cognitive processing, and increased emotional reactivity, relates to the Big Five personality traits among Nepalese university students. The survey was conducted at three universities in Nepal with 327 participants aged 18 to 24 (137 males, 190 females). The HSP scale (Pluess et al., 2023) and the Ten-Item Personality Inventory (Gosling et al., 2003) were utilized. Data was analyzed using Pearson correlation coefficients. Findings reveal a negative correlation between SPS and Big Five personality dimensions. Specifically, SPS was significantly negatively associated with Emotional Stability ( $r = -.25$ ,  $p < .01$ ), Agreeableness ( $r = -.21$ ,  $p < .01$ ), and Conscientiousness ( $r = -.11$ ,  $p < .05$ ). Gender-specific analysis indicated that among males, SPS showed significant negative associations with Emotional Stability ( $r = -.38$ ,  $p < .01$ ), Agreeableness ( $r = -.24$ ,  $p < .01$ ), and Openness to Experiences ( $r = -.18$ ,  $p < .05$ ). Among females, SPS was significantly negatively associated with Emotional Stability ( $r = -.23$ ,  $p < .01$ ), Agreeableness ( $r = -.22$ ,  $p < .01$ ), and Conscientiousness ( $r = -.22$ ,  $p < .01$ ). The study concludes a negative correlation between SPS and the Big Five among Nepalese university students. These results align with previous findings indicating that SPS is negatively related to Emotional Stability and has no association with Extraversion (Lionetti et al., 2019). However, the negative correlation with Agreeableness and Conscientiousness suggests potential cultural influences on the relationship between SPS and personality traits.

09:30-11:10 | Room 607 (6F)

# Thursday Onsite Parallel Session 1

Education, Sustainability & Society: Social Justice, Development & Political Movements

Session Chair: Anupama Devendrakumar

09:30-09:55

83967 | *Population Growth as the Elephant in the Room: Teachers' Perspectives and Willingness to Incorporate a Controversial Environmental Sustainability Issue*

Iris Alkaher, Kibbutzim College of Education, Israel

Nurit Carmi, Society and Environment Program, Israel

Population growth (PG) is a major driver of the global environmental crisis, yet it is rarely included in environmental education due to its controversial nature. Since teachers play a crucial role in educating about PG, this research aimed to explore what teachers know, feel, and think about PG, and to identify the barriers and facilitators to discussing this issue in class. To assess teachers' knowledge, attitudes, and emotions towards this issue, as well as their willingness and subjective competence to bring it into class, we conducted a mixed-methods study. This involved a multiple-choice questionnaire accompanied by open-ended questions and, finally, semi-structured interviews. The sample included 231 teachers, with 102 being environment/sustainability educators (ESE) and 129 teaching non-environmental subjects (Non-ESE). The findings revealed that an academic background in ESE had limited impact on teachers' perceptions concerning PG and their willingness to discuss it in class. One major reported barrier to bringing the PG issue into class was its absence from school curricula and the Israeli public discourse. Other barriers included disavowal of the issue and various social, cultural, and political concerns. To encourage teachers to incorporate PG into their teaching, support from education system stakeholders is essential. This support is important for two reasons: firstly, to provide an understanding of the causes of the environmental crisis and ways to address it, and secondly, to equip teachers and ultimately students, with the skills to conduct respectful and open discussions on controversial issues.

09:55-10:20

85552 | *Encouraging Youth Participation: The Role of Local Youth Centers*

Sun Young Park, Korea National Sport University, South Korea

The study aimed to assess the needs of young people and evaluate youth participation level in South Korea, focusing on Icheon City. Firstly, the study analyzed the internal and external conditions and management of a local youth center in Icheon City to determine its impact on youth development. Secondly, it evaluated the participation levels and needs of young people to support their holistic development. The study highlighted the challenges faced by the younger generation due to the pandemic and the influence of the 4th Industrial Revolution, which have negatively affected local communities and economies. In January 2024, the study surveyed 504 young people in Icheon City regarding their participation in youth activities and their needs. Data analysis, conducted using SPSS 26.0, included internal consistency tests, frequency analysis, independent t-tests, and one-way ANOVA, with a significance level set at  $p < .05$ . Key findings revealed a low youth participation rate of 32% in Icheon City, significantly below the national average of 88.3%. This underscores the need for diverse support mechanisms from local governments to enhance youth participation. Additionally, the study emphasized the crucial role local youth centers should play in fostering holistic youth development. In conclusion, while local youth centers offer various programs to support youth participation, there is a disparity in the recognition of their efforts. Strengthening the support for youth participation and enhancing the role of youth centers are vital steps towards addressing the needs and aspirations of young people in Icheon City.

10:20-10:45

87787 | *Political Movement and Global Student Activism: Decoding Universities as Sites of Resistance and Emergence of Students as "Agents of Justice"*

Arushi Kaushik, University of Hong Kong, Hong Kong

Universities as democratic spaces have ignited the sociological imagination of the students by exposing them to the multiple realities and the lived experiences of others in the multicultural context. Students which are broadly seen as part of civil society, nonstate actors, and critical agents have an indispensable role in contributing to the ideal of justice as well as enriching the principles of democracy. This can be supported by empirical evidence and trends in global student protests. The emergence of student voice in expressing the concerns of marginalized points towards formal agency of university students in organizing the fight against injustice at the global and local levels which is not yet organized by normative theorists of agents of justice. Drawing from the theories on the agency of agents and the democratic context this research paper seeks to comprehend the "philosophy of praxis" by uniting the ideals of theory with ethnographic data. The main argument is that students have formal agency evidenced by student-led protests as political movements fighting for issues of global justice that need to be recognized by normative theorists working on global justice. Unraveling the role of student activism in voicing the concerns of the marginalized and collaborating to stage political movements against injustice at local and global levels, therefore, critically analyzing student activism. The paper lastly, aims to unravel the role of students by analyzing equitable representation in the scheme of justice framework. The arguments placed will be supported and based on ethnographic accounts of student movements in India.

10:45-11:10

88606 | *Active Learning Approach to Global Citizenship Education: Determinants of Achieving Robust Learning Outcomes*

Anupama Devendrakumar, VinUniversity, Vietnam

As an instructor of the course Global Political Economy (GPE), I conduct research to identify the active learning determinants that lead to robust global citizenship education (GCE) learning outcomes. The research focuses on Vietnamese undergraduate students enrolled in the GPE course under the general education program. This research is based on the conceptual framework in which the GPE course learning outcomes are mapped to align with GCE learning objectives, and then the active learning methods of the course are designed to embed the GPE course learning outcomes. The paper uses mixed research methods. Pre-course and post-course student self-assessment surveys, and 18 in-depth student focus-group interviews are used as sources of quantitative data and qualitative insights. The results show the following determinants emerge as robust channels of meeting the learning objectives of GCE: (i) real-world exposure; (ii) case study approach; (iii) peer-to-peer interaction; (iv) space for reflection (v) teacher as a role model. The qualitative insights collected through the in-depth interviews serve as evidence of achieving the GCE learning objectives in three categories: knowledge and skills, attitudes and values, and behavior. The research also explores insights on GCE in the context of Vietnam. The research findings contribute to enhancing the current understanding of the effectiveness of active learning methods; provide suggestions for designing robust active learning methods; and more importantly put the active learning determinants in context to achieve global citizenship education.

09:30-11:10 | Room 608 (6F)

# Thursday Onsite Parallel Session 1

## Teacher Professional Development

### Session Chair: Xiaopeng Gong

09:30-09:55

85319 | *Exploring Organizational Commitment: A Qualitative Inquiry Among Gen Z Basic Ed. Teachers Through Thematic Analysis and Semi-structured Interviews*

Lindy Paul Aldaba, Mapua Malayan Colleges Mindanao, Philippines

Jay Dela Cruz, University of Southeastern Philippines, Philippines

Shanniene Kay Joy Morales, University of Southeastern Philippines, Philippines

The integration of Generation Z (Gen Z) teachers into the educational workforce marks a transformative period characterized by digital fluency, individualism, and evolving work values. This qualitative study explores the organizational commitment of Gen Z basic education teachers in Davao City, aiming to understand their experiences, motivations, and the factors influencing their retention. Through thematic analysis of interviews with four Gen Z teachers, six key themes emerged: motivation and dedication, teacher burnout and perseverance, the need for a supportive and positive learning environment, workplace pressures, job satisfaction and professional development, and the importance of managing teacher workloads. The findings indicate that while Gen Z teachers are highly committed and motivated by a passion for teaching, they face significant challenges, including heavy workloads and administrative burdens. Supportive work environments, clear communication, recognition, and professional growth opportunities are crucial for enhancing their organizational commitment. Recommendations for schools include fostering a supportive community, investing in professional development, streamlining workloads, and conducting further research to improve teacher well-being and retention. Implementing these strategies can create a more positive work environment for Gen Z teachers, ultimately benefiting student outcomes and educational success.

09:55-10:20

85494 | *A Multilevel Investigation of the Relationships Between Teachers' Emotional Labor, Expressed Enthusiasm, and Teaching Quality*

Hui Wang, The Education University of Hong Kong, Hong Kong

Iris Wang, The Education University of Hong Kong, Hong Kong

Ying Chen, The Education University of Hong Kong, Hong Kong

Irena Burić, University of Zadar, Croatia

Teachers' emotional labor, which involves the regulation of emotions to meet job expectations, is often linked to their job satisfaction and burnout. Genuine emotional expression typically leads to greater job satisfaction, while "faking" or "hiding" emotions has consistently been shown to have a negative association with teachers' well-being. However, on the flip side, engaging in emotional labor to intentionally manipulate emotional expressions can also be a strategic way for teachers to engage students and improve teaching quality. While previous research has focused on the relationship between teachers' emotional labor and well-being, this study explores the "double-edged" role of emotional labor in explaining student-reported teaching quality. With a sample of 64 teachers and their 533 students, this research examines how teachers' self-reported emotional labor relates to student-reported teaching quality, with student-reported teacher enthusiasm serving as a mediating factor. Multilevel modeling analysis reveals that, at the student level, higher perceived teacher enthusiasm is associated with greater student-perceived teaching quality. At the class level, teachers' faking emotions is associated with higher class-perceived teacher enthusiasm, which in turn, corresponds to higher class-perceived teaching quality. These findings shed light on the intricate nature of teachers' emotional labor. While previous studies have suggested that faking emotions can negatively impact teacher well-being, this research uncovers a positive aspect of faking emotions by demonstrating its indirect role in enhancing teaching quality.

10:20-10:45

85590 | *Teachers' Self Efficacy as Mediator in the Relationship Between Perceived School Climate and Elementary School Teachers' Social Emotional Competencies*

Eva Septiana, Universitas Indonesia, Indonesia

Andini Hasby, Universitas Indonesia, Indonesia

Social-emotional competence is one of the abilities required by teachers to prepare students who are socially and emotionally competent to face various challenges in the 21st century. Teachers are required to provide learning that is able to develop students' skills as a whole, namely providing students with material from core subjects and providing learning about interpersonal and non-academic skills. In developing social-emotional competence in teachers, teachers' perceptions of the school climate and the level of teacher self-efficacy become factors that support this. This study aims to find the mediating effect of teacher self-efficacy on the relationship between perceptions of the school climate and the social-emotional competence of teachers. The participants in this study were 493 elementary school teachers in Indonesia. This research is quantitative in nature, using the Social Emotional Competencies-Teacher Rating Scale (SECTRS) to measure teachers' social-emotional competence, the Revised-School Level Environmental Questionnaire (R-SLEQ) to measure perceptions of the school climate, and the Teachers' Sense of Efficacy Scale in the Indonesian language (I-TSES) to measure teacher self-efficacy. It was found that there is partial mediation for the variable of teacher self-efficacy in the relationship between perceptions of the school climate and teachers' social-emotional competence in the dimensions of teacher-student relationships and emotion regulation. These findings demonstrate that teachers who perceive the school climate positively will have high self-efficacy, which has an impact on increasing the ability to build positive interactions with students in the classroom, the ability to manage emotions in various situations, and increasing teacher sensitivity and awareness.

10:45-11:10

88290 | *Supporting Teacher Candidates' Success Through Embedding Social-Emotional Learning into Teacher Preparation Coursework*

Xiaopeng Gong, Western Oregon University, United States

Yanjun Zhou, GuangXi College for Preschool Education, China

As we gradually emerge from the pandemic, it is important to stay mindful about how individuals' mental health might still be seriously charged. In the proposed paper, the authors will share about various ways to support teacher candidates' wellbeing when they enroll in teacher preparation programs. Some strategies are discussed: one is to provide instructional accommodations to support teacher candidates' various needs. For example, colleague instructors might consider providing 1-2 rounds of grace periods in the middle, and toward the end of an academic term, to allow teacher candidates extra time and flexibility to catch up with any late work. The other is to embed an optional social-emotional learning (SEL) weekly or biweekly module, to raise the awareness of the importance of self-care, and provide additional support and guidance along with required course materials. Social-emotional learning is composed of a series of competencies such as self-awareness, self-management, social awareness, relationship skills and responsible decision-making. It is particularly relevant and helpful for teacher candidates enrolling in educational psychology and human development courses. In addition to supporting teacher candidates' own needs, the SEL materials are also beneficial for their student teaching. The goals of the above-mentioned strategies are to nurture teacher candidate's social-emotional wellbeing, and prepare them to meet the challenges of future teaching, through integrating SEL into academic teaching.

09:30-11:10 | Room 703 (7F)

# Thursday Onsite Parallel Session 1

## Higher Education & Professional Development

### Session Chair: Michelle Hsien

09:30-09:55

88486 | *Unlocking Career Attitudes Through Participative Learning: Impact of Lecturer Practitioner Programs*

Pratiwi Dwi Suhartanti, STIE Indonesia Banjarmasin, Indonesia

Reni Rosari, Universitas Gadjah Mada, Indonesia

Tur Nastiti, Universitas Gadjah Mada, Indonesia

Unlocking the key to positive career attitudes is essential for driving professional development. While participative learning is recognized for enhancing engagement and skill development, empirical studies linking it to career attitudes remain scarce. This study examines the influence of participative learning on career attitudes, focusing on the mediating roles of creativity process engagement (CPE), thinking skills, self-esteem, and the moderating effect of interpersonal competence. Grounded in Experiential Learning Theory (ELT) and complemented by Self-Determination Theory (SDT), the research develops a comprehensive model explaining these relationships. This study utilizes a pre-intervention and post-intervention design, employing Hayes Process Macro Models 5 and 6 to test hypotheses and validate the model. Data were drawn from 12,935 participants in the Praktisi Mengajar (Lecturer Practitioner) program. Findings from Study 1 indicate that CPE positively influences career attitudes, with thinking skills and self-esteem acting as mediators. Study 2 shows that participative learning significantly enhances career attitudes, with CPE as a mediator and interpersonal competence as a moderator. The results suggest that participative learning, supported by interpersonal competence, can significantly improve career attitudes by developing creativity, thinking skills, and self-esteem. These findings highlight the importance of promoting experiential learning and interpersonal competence to foster professional growth.

09:55-10:20

85576 | *Licensure Examination Success of Teacher Education Graduates: A Trend Analysis Towards a Proposed Supplemental Pre-board Examination Review Program*

Elmira Thrina Pelayo, Bulacan State University, Philippines

Jesson Hero, Academic Senior High School of the City of Meycauayan, Philippines

The 21st-century education paradigm and Sustainable Development Goal (SDG) 4 aimed to produce and supply highly calibrated and qualified teachers who highly possessed and adhered to skills, leadership, and capabilities aligned to the national and international qualification framework and standard. However, licensure examination is one of the hurdles for beginning teachers, and failing rates were still observed among universities and colleges in the Philippines. Hence, this study extrapolated and catechized the licensure examination success of teacher education graduates in one state university in the City of Malolos, Bulacan covering the years 2019, 2022, and 2023. This study utilized quantitative trend analysis focused on gauging and dissecting the patterns and tendencies in the numerical data based on the covered years of examination. Following the rigors of the quantitative trend analysis method, the data revealed that the trend and patterns of LET results of beginning teachers for the three consecutive years are above the national passing percentage of 75% and are satisfactory. Moreso, the beginning teachers' satisfactory results produce a significant difference in the following: examination year, elementary education area of concentration, secondary education area of concentration, and examination components. Thus, strengthening and enhancement of the existing curricular and pre-board examination program should be intensified and reinforced to sustain and uplift the standing of the success rate of the university.

10:20-10:45

84459 | *Factors Affecting Online MCQ Test Performance on Cell Structure Among First-Year Vietnamese Healthcare Students*

Nguyen Cao Thi Tai, Can Tho University of Medicine and Pharmacy, Vietnam

Phu Pham Dac, Indiana University School of Medicine, United States

From 2022-2023, Can Tho University of Medicine and Pharmacy (CTUMP) in Vietnam implemented shared learning, common exams, and equal study times for articulated (Course 36) and regular (Course 48) students in which regular bachelor's degree students follow 1-credit program while pharmacy and medical students take 2-credit program. The Biology-Genetics course for all majors has shared content on cell structure, leading to a same assessment with multiple-choice questions (MCQs) for all students. This study evaluates factors influencing regular online MCQ test outcomes on Cell Structure. The analysis includes 1,147 online MCQ tests by Course 36 and Course 48 students in the academic year 2022-2023. Statistical tests including Pearson's Chi-squared test, Kruskal-Wallis rank sum test, Student's t-test, and ANOVA, are used to identify significant differences ( $p < 0.05$ ). The results show correlations between age groups, gender, study programs, and test completion time with regular test scores ( $p < 0.05$ ). Average test completion times differ significantly among majors and training programs ( $p < 0.05$ ). Average scores correlate with age groups, training programs, and majors ( $p < 0.05$ ). In conclusion, age groups, gender, test completion time, and training programs influence online MCQ test scores. The integration of articulated and regular students, along with shared content in exams, impacts scores. The use of the same test content for different program durations also affects outcomes. This finding suggests educators should consider these factors when designing regular tests and final exams.

10:45-11:10

85377 | *Tertiary Educator Readiness to Support Student Mental Health in Australian Settings*

Michelle Hsien, University of Melbourne, Australia

Anna Dabrowski, University of Melbourne, Australia

Prior research has suggested that tertiary educators see their ability to connect students with appropriate mental health supports as part of their role. These educators tend to be willing to engage in training, coaching, and mentoring around understanding mental health issues and knowing what to do when they encounter students who need mental health support (Kamarunzaman et al., 2020; Gajaria & Zaheer, 2019; Morton & Berardi, 2018). Drawing on detailed insights from 25 educators in Australian tertiary settings, this study aims to provide further qualitative perspectives into tertiary educator readiness to support student mental health, as well as bring to the fore the systemic, cultural and institutional enablers and barriers that impact on tertiary educator readiness to support student mental health. Findings of this study show congruency with prior research, but also suggest that tertiary educator readiness to support student mental health can be greatly affected by their own mental and personal health, and overall work satisfaction.



09:30-11:10 | Room 704 (7F)

# Thursday Onsite Parallel Session 1

Design, Implementation & Assessment of Innovative Technologies in Education

Session Chair: Evaristus Didik Madyatmadja

09:30-09:55

88383 | *Integrating Educational Technology in English Language Teaching: Current State, Effectiveness, and Best Practices at Northeastern Universities*

Wantipa Unarat, Khon Kaen University, Thailand

Parama Kwangmuang, Khon Kaen University, Thailand

Wanwisa Wannapipat, Khon Kaen University, Thailand

The integration of educational technology in English language teaching has become increasingly prevalent, however its effectiveness in enhancing communication skills among undergraduate students in Northeastern of Thailand remains adequately investigates. This research aimed (1) to assess the current state of educational technology implementation, (2) to evaluate its effectiveness in improving English communication abilities, and (3) to develop guidelines for its appropriate application in Northeastern Universities of Thailand. The research employed a mixed-methods approach, utilized stratified random sampling across five universities, through LMS analytics, course syllabi analysis, and IT support logs for data collection. The findings revealed a high adoption rate of LMS (100%) and internet-connected classrooms (90%), but varied integration across language skills (80% for listening, 60% for speaking). Significantly, podcast-based assignments showed the highest improvement in listening skills (18%), while VR conversation simulations demonstrated a 25% increase in speaking fluency. The study identified key challenges, including login issues (40% of technical problems) and limited mobile learning integration (40% adoption). Innovative recommendations emphasize implementing bi-weekly VR conversation simulations, daily 5-10 minutes microlearning modules, and adaptive learning paths, projected to enhance overall language proficiency by 22%. This research contributes to the field by providing empirical evidence of technology's impact on specific language skills and providing customized guidelines for technology integration in the specific context of Northeastern universities, with the potential to impact educational policy and curriculum development in comparable regional settings.

09:55-10:20

87793 | *Investigating the Change of Technological Acceptance in Using ChatGPT Through a Serial Training Intervention for Increasing Productivity*

Chia-Ying Liu, National Taiwan University of Science and Technology, Taiwan

Hi-Lian Jeng, National Taiwan University of Science and Technology, Taiwan

Generative Artificial Intelligence (GAI) tools, such as ChatGPT (Chat Generative Pre-trained Transformer), have revolutionized various sectors, including education. However, without systematic guidance on the use of ChatGPT, it may remain underutilized or lead to erroneous outcomes. This study investigates how a serial training intervention influences changes in users' technology acceptance of ChatGPT before and after the intervention. The intervention course comprises 134 smaller segments organized into 14 units, systematically and comprehensively introducing the use of ChatGPT over a total of 13.5 hours of video content. Users can engage in self-paced learning, repeatedly, at any time and place. The Unified Theory of Acceptance and Use of Technology (UTAUT2) model is used to explore the differences in technology acceptance before and after the course intervention. It is hypothesized that users' technology acceptance will increase, as guided and informed interventions are expected to enhance confidence and efficiency in utilization, measured by factors such as performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, habit, behavioral intention, personal innovativeness, and use behavior. This research aims to provide empirical evidence on the significance of training interventions in using ChatGPT, thereby enhancing productivity and GAI literacy in educational applications.

10:20-10:45

84663 | *ChatGPT's Impact on Education: Increasing Student's Learning Interest*

Evaristus Didik Madyatmadja, Bina Nusantara University, Indonesia

Debri Pristinella, Atmajaya Catholic University of Indonesia, Indonesia

Edbert Kurniawan, Bina Nusantara University, Indonesia

Dharmawan Elmadya, Bina Nusantara University, Indonesia

Priscillia Utama Christy, Bina Nusantara University, Indonesia

Rolando Krisnanto, Bina Nusantara University, Indonesia

ChatGPT is an AI chatbot technology that is able to predict the probability of sentences and words through entered text commands. ChatGPT has become a popular tool because of the ease it offers to obtain a variety of information. However, the decision of users such as students to use ChatGPT in the world of education and increase interest in learning can be influenced by several factors. In this research, researchers want to test variables in the UTAUT (Unified Theory of Acceptance and Use of Technology) research model which consists of Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Behavioral Intention, and Decision to Use ChatGPT with the aim of determining variables which is a positive influencing factor that supports students to use ChatGPT in education which increases interest in learning. The data obtained were analyzed using Smart PLS 3 and the research results found that the use of ChatGPT by students in education to increase interest in learning was most influenced by the Facilitating Conditions variable, but the Performance Expectancy variable was an insignificant variable in influencing students to use ChatGPT in education and increase interest in learning. To help understand the interactions between the variables being tested and find out the factors that influence students to use ChatGPT in education and increase interest in learning, further research is needed that is more in-depth and uses a larger number of respondents to get accurate results.

09:30-11:10 | Room 705 (7F)

# Thursday Onsite Parallel Session 1

## The Teaching Profession

### Session Chair: Raunaq Chawla

09:30-09:55

84645 | *What it Takes to Reinvent Oneself as an English Teacher Who Doesn't Teach English*  
Mark Rebuck, Meijo University, Japan

The move from teaching general English (GE) to teaching EMP (English for Medical Purposes) requires, this presenter believes, adopting a new mindset about one's role as a teacher and acquiring a deep understanding of the topics to be taught. During a decade-long journey, the presenter has transformed himself from a teacher of English to a teacher for whom English is just the tool for helping pharmacy and medical students to learn about relevant content. The presenter's journey has involved reading hundreds of medical books and keeping abreast of medical news. It has required lesson preparation that takes days, weeks or sometimes months, and not minutes or hours. For example, just the background research for a lesson on diabetes took the presenter over two months. Some researchers suggest that EMP practitioners do not require specialist knowledge to do their job; however, for the presenter, it would be inconceivable to enter a classroom to teach topics of such importance as, for instance, drug side effects or dementia, possessing the knowledge of a layperson. Using findings from his research and examples from his lessons, the presenter will recount his motivation for reinventing himself as the teacher he has become and what he did to accomplish this reinvention. While the focus is on EMP, this presentation will be of value to those interested in other types of content-based instruction.

09:55-10:20

85413 | *"How We Have Come to Know the World": Duoethnography of Asian/Asian American Teacher Educators*  
Seung Eun McDevitt, Rowan University, United States  
Crystal Lee, North Carolina State University, United States  
A. Lin Goodwin, Boston College, United States

Given the current global migration movement and the rise of anti-Asian racism, the role of teachers who share the identities of Asian immigrant students has become more imperative than ever (Kim & Hsieh, 2022). In the U.S., Asian/Asian Americans are the nation's fastest growing group of immigrants (Hanna & Batalova, 2021); yet, the number of Asian/Asian American teachers is among the lowest in the teaching force (National Center for Education Statistics, 2020). Consequently, research on the voices, (counter)stories, and experiences of Asian/Asian American educators have been few. Resisting this silence in the literature, we, Asian/Asian American educators from different countries of origins, designed a duoethnographic study (Norris et al., 2012) to examine our own journeys of becoming teacher educators. We come together to have kitchen table conversations within the Sister Circle (Dunmeyer et al., 2022) as a space that engenders healing and friendship for the purpose of practicing freedom in education (hooks, 1994). Using Asian Critical Race Theory (Museus & Iftikar, 2013), we analyze the transcripts of our conversations and weave our (counter)stories together to "speak ourselves into visibility, solidarity, and power" (Goodwin, 2022, p. xi). Our findings underscored the (in)visibility of Asian/Asian American educators, the importance of solidarity in educational spaces as a site of resistance (Goodwin, 2010), and the need to critique and speak out on issues of power. Our study has implications for how schools, teacher preparation programs, and policymakers can reimagine ways to recruit and retain Asian/Asian American teachers by creating spaces for belonging and solidarity.

10:20-10:45

85244 | *Courageous Conversations and the Intersectional Mirror: A Collective of Women Scholars Critically Examines Themselves and Their Praxis*  
Lisel Murdock-Perriera, Sonoma State University, United States  
Rosela Balinbin Santos, University of Hawaii at Manoa, United States  
Rayna Fujii, University of Hawaii at Manoa, United States

We are three diverse women scholars who currently teach, research, and practice in Hawaii and California, USA. Our collective met through our shared interest in guiding Courageous Critical Conversations with teachers and young children in elementary school settings—conversations about justice-related topics such as immigration, colonization, race, and gender. We have now worked together for over four years, leading six successful workshops, writing three manuscripts, and presenting at seven conferences together, as well as supporting one another through our academic journeys toward promotion and tenure and personal journeys such as the growth of our respective marriages and children. We have developed close collegial relationships that are also deeply intrapersonal—rooted in our social justice beliefs, our senses of humor, and our senses of place and self. These relationships allow us to explore our own systems of bias, to question one another, and to hold each other accountable as we seek to engage in anti-racist and culturally responsive practices. We now metacognitively examine the work we do with students, teachers, and each other. In this presentation, we explore a chapter of a proposed manuscript that looks reflexively at our intersectionalities in a critical mirror: de-/re-composing and critiquing our individual and shared identities, choices, and belief systems as they relate to the work we do to dismantle systemic injustice and oppression. As critical women scholars from diverse backgrounds, we are more than the sum of our intersectionalities, and when our collective looks in the mirror, our reflexive critical work takes wings

10:45-11:10

88074 | *Evolving Pedagogies: Integrating Student, Teacher, and Contextual Dynamics in Modern Education*  
Raunaq Chawla, O.P Jindal Global University, India  
Shailja Rana, University of Delhi, India

Education in India has transformed from the ancient Indian tradition of 'guru-shishya parampara', which means lineage of passing knowledge from a succession of gurus (teachers) to students through oral tradition to the establishment of modern formal education wherein the question of what a teacher should know has been central to the Pedagogical discourse. However, contemporary understanding recognizes that the experiences and personalities of teachers and students and broader societal trends equally shape classroom dynamics. This study explores how pedagogical practices can be designed to reflect and integrate these diverse influences, ensuring that education extends beyond textbook knowledge to prepare students for real-world challenges. Through semi-structured interviews with 5 experienced educators and 5 students studying in colleges in Delhi-NCR, this research gathers insights into the evolution of modern pedagogies. The data, analysed using NVivo and structured around General Pedagogical Theory, reveals how teaching practices adapt to accommodate the complex interplay between teacher and student experiences and 'humanizing pedagogy' in the broader social context. The findings offer valuable guidance for developing effective teaching strategies to adapt to online and hybrid learning management systems and curriculum customization for the future.

09:30-11:10 | Room 707 (7F)

# Thursday Onsite Parallel Session 1

## Indigenous & Inclusive Education

### Session Chair: Alyssa Dana Adomaitis

09:55-10:20

86603 | *Exploring the Operation and Functions of Alternative Libraries in Indigenous Schools*  
Ting-Ying Lo, Tzu Chi University, Taiwan

This article explored the operation and functions of Jing Si Books, an alternative religious library, established through the cooperation between the Tzu Chi Foundation and entrepreneurs. So far, 294 such libraries have been set up in Taiwan. This study adopted an interpretive phenomenological approach in a case study, inviting three elementary and secondary schools with majority indigenous students, five teachers from the schools with Jing Si Books to participate in the research. Data was collected through semi-structured in-depth interviews to use thematic analysis. The study results showed the functions of Jing Si Books regarding the cultivation of reading literacy included students learning from reading to increase character recognition; engaging students in reading community activities and promoting reading interest (PIRLS, 2006). Additionally, the achieved humanistic education goals were reflected in the promotion of reading programs, and the participation of teachers and students in Tzu Chi's charitable activities. This demonstrated the teachers' loving-kindness, compassion, joy, and equanimity, creating an atmosphere of gratitude, respect, and selfless love for the students. The operation methods included: (a) the purpose was to enhance reading interest and promote benevolence; (b) a teacher responsible; (c) Jing Si Books was an open space; (d) reading integrated both formal and informal courses; (e) reading activities related to humanistic education, both dynamic and static; and (f) providing various opportunities to boost reading motivation were through both administrative and teacher collaborations.

10:20-10:45

82483 | *Subject-Centredness and Self-Conception as an Inclusive Science of German-Language Pedagogy for Intellectual Disabilities – Convergence or Contradiction?*  
Jonathan Klix, Leibniz University Hannover, Germany

The German Pedagogy for Intellectual Disabilities, having emerged as a distinct path post-World War II, remains relatively underexplored. This research represents a pioneering effort, providing the first comprehensive examination of the self-perception of the Pedagogy for Intellectual Disabilities as a scientific discipline within the context of the International Association for the Scientific Study of Intellectual and Developmental Disabilities (IASSIDD) conference. This project involved an in-depth analysis of the eight most recent textbooks within the Pedagogy for Intellectual Disabilities. Employing a combination of Open Coding (Strübing, 2014) and discourse-linguistic multilevel analysis (Spitzmüller & Warnke, 2011), the research embraced both deductive and inductive approaches. The majority of PbgB does not regard itself as an inclusive-participative scientific discipline. Notably, our research reveals innovation in recognizing a historical correlation between shifts within the discipline and corresponding changes in educational practice. This is particularly pertinent in light of recent empirical studies indicating that a significant proportion of students in special education focusing on intellectual development lack an intelligence quotient-based intellectual disability. The results underscore the imperative for interdisciplinary reflection within the field of Intellectual and Developmental Disabilities (IDD). The research's adaptability is highlighted, serving as a foundational resource for subsequent empirical and theoretical inquiries into Pedagogy for Intellectual Disabilities or associated educational practices. The innovative potential lies in leveraging shifts within the discipline as catalysts for positive developments in pedagogical approaches. This study sets the stage for future research by highlighting the need for further exploration into the historical and reciprocal relationship between PID and practice.

10:45-11:10

88093 | *Intersectionality Theory and University Student Perceptions of the Inclusive Classroom*  
Diana Saiki, Ball State University, United States  
Alyssa Adomaitis, New York City College of Technology, United States  
Karlique Caesar, City University of New York, United States

Intersectionality Theory suggests individuals have intersecting identities (Al Faham et al., 2019). Research indicates that gender, ethnicity, and age intersect for a more complete understanding of an individual (e.g., Ridgeway & Smith-Lovin, 1999). In an inclusive pedagogical environment, all identities and backgrounds can thrive (Dartmouth, 2024). An inclusive classroom is achieved through various methods, such as adapting to cultural dialects that differ in rules from the primary dialect spoken at a university. Hogan and Sathy (2022) propose that making a course "structured" encourages inclusivity. This teaching strategy encompasses having activities before, during, and after each class period that are measurable and required for all students. Hogan and Sathy indicate a "structured" course impacts students' learning experiences increasing student output, motivation, and class-time preparation. Research on inclusivity notes student evaluation of "structured" courses varies with some students valuing structured work while others expressing discomfort. The purpose of this paper is to examine students' perceptions of a "structured" course. These perceptions are analyzed in the context of intersectionality theory. Teaching evaluations from structured versus unstructured courses are compared. In addition, data includes a survey distributed to a freshman class with questions regarding the students' demographics and perceptions of structured courses. The results demonstrate mean scores of student evaluations of structured classes are higher than the mean scores of unstructured classes (same instructor). Survey results add to understanding the demographic groups that prefer structured learning (e.g. significance of first-generation college students versus gender).

09:30-11:10 | Room 708 (7F)

# Thursday Onsite Parallel Session 1

Foreign Languages Education & Applied Linguistics

Session Chair: Chenrui Miao

**09:30-09:55**

86291 | *The Authenticity of EFL Summative Test Tasks at Senior High Schools in West Seram, Maluku Province, Indonesia*  
Hardianto Hitimala, Universitas Pendidikan Indonesia, Indonesia

The objective of this study was to find out the authenticity of the EFL summative test at the Senior High School in Seram, Maluku, Indonesia. The research design was a descriptive quantitative study. The data was collected from the documents of summative test items that consist of two major parts; forty multiple-test items and three open-ended questions. The instruments rubric was constructed to assess test authenticity. The analysis focused on test task authenticity, covering the setting, structure of the communicative event, input, and expected response. The rubric was constructed based on the characteristic of authenticity proposed by Bachman and Palmer (1996), and Brown and Abeywickrama, (2018). The finding showed that the summative test consists of 13 tasks using 9 short reading texts, 3 open-ended questions, and 2 short dialogue texts that served different social functions such as short message, self-introduction, recount text, announcement, narrative, argumentative text, invitation, recount text of personal experience, business letter, greeting, and turn taking. Concerning task authenticity, there were 34 out of 43 items on all task components were identified as high authentic while 9 items were low authentic. The cumulative analysis of all tasks indicated that 67% were highly authentic, while 33% were low authentic.

**09:55-10:20**

88493 | *Uncovering the Learning Strategies: How Learners of Chinese as a Second/Foreign Language (CSL/CFL) Navigate Pragmatics in Chinese*

Jing Jin, The Education University of Hong Kong, Hong Kong

Yang Yang, The Education University of Hong Kong, Hong Kong

Ji-eun Lee, Ewha Womans University, South Korea

While Interlanguage Pragmatic Learning Strategies (IPLS) have been studied in English language learning (e.g., Tajeddin & Malmir, 2015; Derakhshan et al., 2021), their application in Chinese learning remains underexplored. This research investigates common IPLS adopted by adult CSL/CFL learners and examines the relationship between IPLS use, proficiency levels, and learning contexts (immersive vs. non-immersive). The study recruited 61 intermediate and advanced adult learners of Chinese from universities in Mainland China and South Korea. An online questionnaire survey consisting of 30 items was conducted twice over five months to assess six major IPLS categories including memory, cognitive, metacognitive, compensatory, social, and affective strategies (Tajeddin & Malmir, 2015) using a 0-5 Likert scale. Key findings: (1) The five-month learning period did not substantially change the overall IPLS application; (2) Proficiency level was a crucial predictor of IPLS application, with advanced learners reporting higher scores than intermediate learners for IPLS use; (3) Learning context significantly impacted IPLS application, with CSL learners scoring significantly higher in IPLS than CFL learners. This study underscores the importance of IPLS in Chinese pragmatics learning and offers new insights for pragmatics teaching.

**10:20-10:45**

85369 | *The Impact of the Jigsaw Cooperative Learning Strategy on Arabic Language Skills Among Students of the College of Education at Kuwait University*

Nouri Alwattar, Kuwait University, Kuwait

This study aimed to identify the effectiveness of the Jigsaw cooperative learning strategy in developing Arabic language skills among students of the College of Education at Kuwait University. To achieve the study's objectives, both the descriptive analytical method and the experimental method based on the design of two groups (experimental and control) were used. The data collection tool was an achievement test, applied to a sample of 138 female students from the College of Education at Kuwait University, with 70 in the control group and 68 in the experimental group. The study variables were the Jigsaw strategy (independent variable) and Arabic language skills (dependent variable). The study concluded with several findings, most notably the presence of a statistically significant difference at the significance level ( $\alpha \leq 0.05$ ) between the mean scores of students in the experimental and control groups in the post-application of the achievement test in Arabic language skills, in favor of the experimental group that used the Jigsaw strategy. The results also indicated that this strategy had a significant impact on improving the Arabic language skills of the learners. The study made several recommendations, the most important of which are: 1. Teachers should be informed about the importance and benefits of the Jigsaw strategy for teaching Arabic and encouraged to use it.

**10:45-11:10**

85656 | *The Impact of Self-Regulated Learning Strategies on Self-Efficacy on Undergraduate Students in Learning Chinese as a Second Language*

Chenrui Miao, Curtin University, Australia

In the context of second language acquisition (SLA), self-efficacy is conceptualized as one of the meta-cognitive strategies to attain desired learning outcomes and enhance confidence in facing challenges throughout the language learning. Yet, a discernible lacuna exists in the literature when it comes to the influence of self-regulation abilities on self-efficacy within the context of Chinese as a Second Language Education (CSL). Self-monitor and evaluation, individual achievement and fulfillment, the ability to utilize external resources and affective attitude towards Chinese affect have been defined as four specific methods to conduct self-refulation. Therefore, the research further explores how these four elements together exert influences on self-efficacy. To achieve this goal, This investigation engaged 60 undergraduate learners of the Chinese language hailing from three distinct educational institutions in Beijing and Tianjin. The survey instrument employed in this study encompasses a total of 55 items, of which 49 are derived from a 5-point Likert scale. This study utilized R language (version 4.2.3) for preprocessing, descriptive statistics, T-tests, Bootstrap confidence intervals, correlation analysis, and polynomial regression. Since the self-regulated learning strategies in this study were all reported by the learners, there may be a common method bias. The Harman single-factor test was used to check for common method bias. In this study, to explore the impact of self-regulation strategies on learners' self-efficacy, a response surface analysis method based on polynomial regression was used. This article aims to help CSL teachers better and adapt their teaching philosophy to students' learning condition, thus guiding students to be self-directed.



## Notes

[illegible]

11:25-12:40 | Room 601 (6F)

## Thursday Onsite Parallel Session 2

Challenging & Preserving Culture, Inter/Multiculturalism & Language

Session Chair: Tzu-Bin Lin

11:25-11:50

84147 | *Anglo-Caribbean Educators' Attitudes to Promoting Caribbean Creoles in Japanese ELT Classrooms: Ideological and Implementational Constraints*

Gregory Paul Glasgow, Kanda University of International Studies, Japan

Originating from the linguistically diverse Caribbean, Anglophone Caribbean Creole speakers come from diglossic sociolinguistic contexts where standard English co-exists with various Creoles, such as Jamaican Creole (or 'patois'), Guyanese Creole, and Trinidadian Creole, among others. While Creole languages serve as significant cultural identity symbols for Caribbean people, they also act as class markers and are sometimes stigmatized as non-standard languages. EFL instructors from this region often grapple with the perception of their English variety in Japanese ELT, which may be labeled as "non-native" and negatively contrasted with the more "prestigious" Inner Circle varieties of American and British English. Nevertheless, some of these educators attempt to strategically carve out implementational spaces (Hornberger, 2023) to champion plurilingualism and promote diversity by introducing students to their ways of speaking. Adopting an Unequal Englishes framework (Tupas, 2015; 2024), this study reports the findings of in-depth, semi-structured interviews with several English-speaking Caribbean educators across formal and private language school contexts in Japan. It gauges Caribbean educators' perspectives on promoting Creole languages within the EFL environment and examines power dynamics within language classrooms, exploring how certain varieties might be given precedence over others. Additionally, the study considers how implementational spaces for multilingual TESOL may be potentially created by some teachers but closed by others due to a variety of sociocultural and psychological factors.

11:50-12:15

85539 | *The Interplay of Home Language Environment Facets in Singaporean Bilingual Families*

Li Li, Singapore Centre for Chinese Language, Nanyang Technological University, Singapore

Great effort has been made in encouraging Singapore Chinese parents to speak more Chinese at home, in order to create a beneficial environment for their children to learn Chinese language (CL). However, parents still reported having trouble supporting their children's CL learning, even though Chinese is the most used language at home. The current study aims to unveil the effect of HLE facets, other than language preference, on children's CL learning. We invited 24 parents who reported mostly using Chinese at home to complete a home language environment (HLE) questionnaire and to provide recordings of their daily conversations with the children. The HLE questionnaire asked about home language preference in general, children's oral language exposure and print exposure at home in English and Chinese, respectively. Chinese sentences from the daily conversations were analyzed for the quality of children's spoken CL features. We found that although CL is reported as the preferred language in these families, children experienced different forms of language exposure. Children's CL language preference did not correlate with their spoken CL features. A "preferred activity" pattern instead of "language competition" pattern was found, that despite the language used/exposed, activities of print exposure compete with oral language exposure for children's time. Children with more print exposure, in either language, exhibits higher oral language proficiency in Chinese. Children with more literacy related activities with their parents also tended to speak CL better. These findings highlighted the importance of quality over quantity of HLE in the Singapore Chinese-English bilingual families.

12:15-12:40

85981 | *The Development of Bilingual Education in Taiwan: From Policy to School Implementation*

Tzu-Bin Lin, National Taiwan Normal University, Taiwan

In 2019, the Taiwanese government announced its 2030 Bilingual Policy to increase the nation's competitiveness by making Taiwan bilingual. The two languages under this policy are Chinese (the most commonly used language in Taiwan) and English (the target language). Although English is the only compulsory foreign language to be learned in Taiwanese schools, it is not a language that is used daily among Taiwanese people. As this policy directly impacts the whole education system, teachers must teach various school subjects bilingually without proper training. This presentation aims to explicate the status quo and the challenges of implementing bilingual education in schools while applying the existing empirical research evidence to support the presenter's argument. In the first half of this presentation, the following aspects will be covered: the overall goals of the 2030 Bilingual Policy and its impacts on various levels of education, such as basic and higher education. The second half of this presentation will cover the current practices in primary and junior high schools, as well as the challenges that schools face. Then, the pre-service and in-service teacher training for bilingual teaching is also discussed to offer a full picture of bilingual education in schools. The localised bilingual education model, the FERTILE model, will be mentioned and explained at the end of this presentation. It could be argued that bilingual education in East Asia can develop a contextualised model that fits local needs rather than blindly importing Western models.

11:25-12:40 | Room 603 (6F)

# Thursday Onsite Parallel Session 2

## Curriculum Design & Development

### Session Chair: Sirimonpak Suwannakhun

11:25-11:50

88661 | *Enhancing School-Based Environmental Education Curriculum in China: Lessons from a Comparative Analysis with Japan's Environmental Education Systems*

Mao Yuying, Ritsumeikan Asia Pacific University, Japan

Li Yan, Ritsumeikan Asia Pacific University, Japan

In recent years, there has been a growing emphasis on environmental education as a vital tool in confronting present and future environmental challenges, garnering attention from both the public and governments. This study undertakes a comparative analysis of environmental education programs in primary schools in China and Japan, with a focus on how environmental education is integrated into school curricula and subject textbooks. Through content analysis, we assessed whether the curriculum guidelines for various subjects in primary schools align with national environmental education standards in both countries. The results reveal that while both China and Japan adhere to national guidelines for environmental education in their textbook designs, Japan's approach stands out for its more comprehensive content and innovative teaching activities. Overall, the curriculum in both countries tends to prioritize a human-centered perspective of nature, often overlooking the fragility of the environment. However, educational units in Japan appear to actively promote creative engagement with nature and encourage exploration from diverse viewpoints. This comparative analysis provides valuable insights into ways to enhance China's environmental education curricula. By adopting more comprehensive content and interactive teaching methods, similar to those in Japan, China can strengthen its school-based environmental education and better equip students to comprehend and address environmental challenges.

11:50-12:15

88647 | *Integrating SDGs into Cross-School Collaborative Outdoor Education: A Case Study of Water Resource Exploration Through Cycling*

Cheng Hung Weng, National Taipei University of Technology, Taiwan

Wen Liang Chang, National Taipei University of Technology, Taiwan

The purpose of this paper is to describe the development process of an outdoor education curriculum integrated with SDGs (Sustainable Development Goals) by teachers who are highly concerned about SDG issues from two riverside schools located in the same river basin but on different tributaries in northern Taiwan. Using the ORID (Objective, Reflective, Interpretive, Decisional) focused discussion method as a framework, the teachers collaboratively developed and refined the curriculum. The course design begins with guiding students through outdoor field observations to record their findings and establish emotional connections with nature. It then focuses on raising awareness of sustainability issues related to the SDGs, utilizing diverse perspectives and appropriate criteria to filter information on various relevant topics. Finally, through cross-school sharing, discussions, role-playing, and debates, the course explores possible solutions to sustainability issues and encourages students to make value judgments. The results of the course implementation show that: (1) The course structure, combined with outdoor field investigations and the ORID focused discussion method, effectively achieves the teaching objectives of education on SDG issues; (2) After experiencing this course, students are also able to apply this method to explore and discuss other sustainability-related issues, further fostering their love for their homeland.

12:15-12:40

86611 | *Development of an AI-Powered Robot to Collect COVID-19 Contaminated Waste*

Sirimonpak Suwannakhun, King Mongkut's University of Technology Thonburi, Thailand

Tanes Tanitteerapan, King Mongkut's University of Technology Thonburi, Thailand

Narong Mungkung, King Mongkut's University of Technology Thonburi, Thailand

Patasu Doungmala, Next Software Company, Thailand

Naphatsanan Suwannawong, King Mongkut's University of Technology Thonburi, Thailand

This research focused on developing an AI-powered robot for collecting COVID-19 contaminated waste. The study employed a mixed-methods approach with three objectives: evaluating the robot's efficiency, assessing user satisfaction, and raising community awareness about proper waste management. The waste collection robot control program successfully performed image processing, distinguished objects, and controlled the collection arm's movement. The Arduino UNO R3 code effectively controlled the vehicle's movement, allowing it to: 1. Control movement direction 2. Collect and dump waste at designated locations 3. Differentiate between objects in the database and others. Three experts in robot design and development evaluated the robot's quality. It achieved over 90% efficiency in picking up objects and placing them in waste bins, and 70% efficiency in movement control. User satisfaction was assessed by 30 purposively sampled students and staff, resulting in an average satisfaction rating of 4.00. The research also aimed to enhance the research team's skills in computer programming, analytical thinking, problem-solving, and teamwork, as well as improve their understanding and use of current technologies.

11:25-12:40 | Room 604 (6F)

## Thursday Onsite Parallel Session 2

**Nurturing Creativity & Innovation: New Innovative & Radical Education (Panel)**

**Session Chair: Matilda Isaac**

11:25-12:40

88475 | *Integrating AI-Enhanced IoT into Higher Education Curriculum Design*

Matilda Isaac, Xi'an Jiaotong-Liverpool University, China

Anisa Vahed, Xi'an Jiaotong-Liverpool University, China

Karim Moussa, Xi'an Jiaotong-Liverpool University, China

Yuji Dong, Xi'an Jiaotong-Liverpool University, China

This panel session focuses on integrating artificial intelligence (AI) and the Internet of Things (IoT) to transform higher education teaching and learning. We will present empirical evidence, theoretical frameworks, and practical applications, demonstrating the potential of AI-enhanced IoT to innovate curriculum design, improve educational delivery, and enhance student engagement. The session will start with an overview of the importance of AI and IoT integration in higher education, followed by insights from four experts, each providing a 15-minute discussion on their expertise. These discussions will focus on real-world case studies, best practices, and practical strategies for implementing AI-enhanced IoT technologies in academic environments. A key presentation component will be a moderated discussion exploring the practical challenges and opportunities of deploying these technologies. This dialogue will highlight the importance of interdisciplinary collaboration and offer actionable strategies for overcoming common IT challenges and maximizing the potential of AI and IoT in achieving educational objectives. The panel session will end with an interactive Q&A, allowing participants to share experiences and discuss the future of AI and IoT in education. Attendees will gain the knowledge and tools needed to effectively leverage AI-enhanced IoT technologies, fostering innovation and excellence in their institutions. This session is essential for educators and administrators committed to staying at the forefront of educational advancements.



11:25-12:40 | Room 605 (6F)

## Thursday Onsite Parallel Session 2

Mind, Brain & Psychology

Session Chair: Bobby Ho-Hong Ching

11:25-11:50

88491 | *Harmonizing Minds: The Impact of Music Experience on Cognitive Development in Bilingual Children*  
Doris Yuma Kashiwagi, Osaka Kyoiku University, Japan

This study investigates the impact of musical experience on the cognitive skills of bilingual children, specifically focusing on executive functions such as working memory, cognitive flexibility, and inhibitory control. While bilingualism has been linked to enhanced cognitive functions due to the continuous management of two languages, the potential amplification of these effects through musical training has not been fully explored. A two-phase mixed-method approach was adopted. In the first phase, an online survey with both Likert-scale questions and open-ended responses was conducted with 23 bilingual participants from seven different countries. The results informed the design of the second phase, which involved in-depth interviews with three Japanese-English bilingual children aged 9 to 15 residing in Japan. The interviews revealed that musical experience could lead to changes in how phrases and intonation are expressed in different languages, enhancing emotional expression and communication skills. These findings suggest that musical training may strengthen the neural encoding of speech through overlapping cognitive processes. Data were qualitatively coded to identify common patterns, while regression analysis was used to examine relationships between musical experience and cognitive skills, though the small sample size limited statistical significance. The results support the integration of Bialystok's theory on bilingual cognitive advantages, Green's Inhibitory Control Model, and Patel's OPERA hypothesis. This study contributes to a deeper understanding of how bilingualism and musical training intersect, providing practical insights for educational strategies and interventions aimed at optimizing children's cognitive development.

11:50-12:15

85092 | *Profiles of Inversion Understanding in Children Predicts Success in Solving Particular Word Problems Longitudinally*  
Bobby Ho-Hong Ching, University of Macau, Macau

Understanding the inverse relation between addition and subtraction may assist children in reasoning about the underlying structure of the quantitative relationships presented in word problems, but direct evidence is lacking. In this study, we examined whether 6-year-old children with a stronger profile of inversion knowledge predicted their success in solving start-unknown change problems and compare problems with inconsistent language 18 months later among 368 Chinese children. At Time 1, children were presented with inverse problems ( $a + b - b = a$ ) and control problems ( $a + b - c = d$ ), and we also assessed general intelligence, working memory, inhibitory control, magnitude knowledge, and word recognition ability as control variables when examining whether profiles of inversion understanding predicted word problem solving measured at 18 months later. Latent profile analysis showed three profiles: (a) strong profile: children who achieved high scores on both inverse and control (i.e., calculation) problems, (b) weak profile: children who obtained low scores on both problems, and (c) inverse profile: children who achieved high scores on the inverse problems but had low scores on the control problems. However, there was no evidence of a group of children who excelled at calculations but were unable to utilize the inversion principle. Second, after considering the control variables, there were profile differences in predicting performance in start-unknown change problems and compare problems with inconsistent language (strong profile = inverse profile > weak profile). Implications for children's development in mathematical thinking and mathematics education are discussed.

11:25-12:40 | Room 607 (6F)

## Thursday Onsite Parallel Session 2

Education, Sustainability & Society: Social Justice, Development & Political Movements

Session Chair: Christopher Sasot

11:25-11:50

85200 | *Challenging Dominant Narratives: Dalit Women's Voices in Indian Higher Education*  
Preeti Koli, Dr. B.R. Ambedkar University Delhi, India

This study delves into the experiences of Dalit women activists in higher education, foregrounding their resistance against the systems of oppression. Dalit women, situated at the intersection of caste and gender marginalization, face systemic exclusions within academic spaces, exacerbated by socio-economic and cultural barriers. This research illuminates how Dalit women activists challenge these structures by employing various strategies of grassroots mobilization, advocacy, and scholarly knowledge. Utilising qualitative methodologies, including in-depth interviews of ten participants, the study captures the strategies these women employ to navigate and contest their marginalisation in higher education. The findings reveal that on one hand Dalit women activists engage in community-driven educational initiatives that empower young Dalit girls through mentorship and advocacy, fostering a support system that counters institutional neglect. On the other, they confront academic gatekeeping by actively participating in policy discussions, pushing for inclusive curricula and anti-discriminatory practices within educational institutions. The research highlights their efforts to create counter-narratives that validate Dalit epistemologies and experiences, thereby challenging the hegemonic knowledge production in academia. Through this activism, Dalit women not only carve out spaces for themselves but also contribute to a broader movement for educational justice. The study underscores the necessity of intersectional approaches in understanding and addressing the educational inequities faced by marginalized communities, advocating for policy reforms that recognize and dismantle these entrenched barriers.

11:50-12:15

88031 | *Societal Acceptance and Challenges of LGBTQ+ Individuals in the Philippines: A Social Media Analysis During Pride Month Using Positioning Theory*  
Christopher Sasot, Polytechnic University of the Philippines, Philippines

The current research work seeks to find out how society accepts and challenges the LGBTQ+ community in the Philippines basing on what people post on social media during Pride Month. Using positioning theory, this study examines ways through which online interactions position and are positioned by individuals within the LGBTQ+ group. The data were collected from posts made on Twitter, Facebook, Instagram and TikTok using hashtags such as #PrideMonthPH, #LGBTQPhilippines for an entire month of pride. Thematic analysis and qualitative coding enabled identification of key positions and storylines that emerged from the discourse thus demonstrating how identity, power relations, and cultural norms intertwine. Findings reveal that LGBTQ+ individuals often position themselves as proud and resilient, celebrating their identities and advocating for equality. Conversely, they are sometimes positioned by others in ways that reflect societal prejudices and opposition. The discourse features prevalent storylines of acceptance, discrimination, activism, and resistance, which are influenced by cultural values and power dynamics within Filipino society. The study also identifies the role of social media in both fostering a supportive community and perpetuating challenges for LGBTQ+ individuals. The implications of these findings suggest that while progress has been made towards greater acceptance, significant challenges remain. This research contributes to a deeper understanding of the societal forces shaping LGBTQ+ experiences in the Philippines and offers insights for policymakers, advocates, and educators aiming to promote LGBTQ+ rights and acceptance.

12:15-12:40

88709 | *Sustainability in the Field Education: The Climate Action Podcast Series*  
Julie Drolet, University of Calgary, Canada

Sustainability education and climate justice are essential in addressing the challenges posed by nature-induced disasters, climate change, and to enhance community resilience. This presentation will discuss the Climate Action and Advocacy on the Airwaves project that is focused on creating climate action podcasts for a radio series. This project features a diverse range of content, created by undergraduate and graduate students in social work field placements. Practicum students engaged with service providers, community leaders, non-profit agencies, and community organizations to learn valuable insights on community-based climate action initiatives in Southern Alberta in Western Canada. These discussions were captured in pre-recorded podcasts, which are to be aired on the University of Calgary Student Radio Society (CJSW Radio) and made available online. The project drew inspiration from a Green Social Work approach, recognizing that vulnerable populations bear a disproportionate burden of climate change and environmental injustice. Social Work students as part of their practicum engaged in experiential learning by creating podcast content by reviewing the relevant literature and data sources on climate awareness and action topic areas, including the Sustainable Development Goals, contributing to their experiential learning. The presentation will highlight the podcasts and how they contribute to sustainability, education, and social justice.

**11:25-12:40 | Room 608 (6F)**

# **Thursday Onsite Parallel Session 2**

## **Entrepreneurial & Business Education**

### **Session Chair: Thanathnuth Chatpakkarattana**

**11:25-11:50**

88867 | *Designing Suggested Units Based on Entrepreneurial Education and Future Skills and Measuring Their Impact on the Creative Solution to Problems*

Mohamed A. Shahat, Sultan Qaboos University, Sultanate of Oman

Sulaiman M. Al Balushi, Sultan Qaboos University, Sultanate of Oman

Jaana Seikkula-Leino, Mid Sweden University, Sweden

Khalsa Al-Alawi, Sultan Qaboos University, Sultanate of Oman

Khalsa Al-Bahri, Ministry of Education, Sultanate of Oman

Wafaa Abdelaal, Sultan Qaboos University, Sultanate of Oman

This strategic project, funded by the Omani Ministries of Education and Higher Education, Innovation, and Research, focuses on designing innovative educational units that integrate entrepreneurial education and future skills. It aims to evaluate their impact on 10th-grade students' creative problem-solving abilities, entrepreneurial thinking, and intent. The study uses a quasi-method approach to assess how these units influence students' ability to think creatively and adopt an entrepreneurial mindset. The research involves randomly assigned experimental and control groups, with data collected using various instruments to measure creative problem-solving, entrepreneurial thinking, and intent. Aligned with Oman's Vision 2040, this study contributes to educational innovation by proposing a model that incorporates entrepreneurial education into the science curriculum. The expected outcomes offer significant insights into curriculum development, promoting future competencies entrepreneurial skills, and fostering a mindset centered on creativity, innovation, and leadership. The research has the potential to shape educational policies, emphasizing the critical role of equipping students with the necessary skills to meet the demands of a rapidly evolving global landscape. At the conference, we plan to present our findings, offer practical insights into designing and implementing entrepreneurial education, and discuss the broader implications for educational policy and practice. Our presentation will highlight how these interventions can enhance students' problem-solving abilities, entrepreneurial attitudes, and readiness for future challenges, contributing to meaningful educational advancements.

**11:50-12:15**

88154 | *Making Japan's Business Africa's Business: Assessing the Impacts of Japan's African Business Education (ABE) Initiative for Youth Scholarship Program*

James Kaizuka, Japan International Cooperation Agency, Japan

The African Business Education Initiative for Youth (the ABE Initiative) is a large-scale Japanese scholarship program which has provided educational opportunities to more than 2000 gifted African students since 2014 with the objective of strengthening business links between Africa and Japan and developing skilled human resources in Africa. With African countries experiencing rapid growth and renewed interest from the private sector in Japan in African investment, the program is increasingly critical to the success of both Japan and its African partners. Despite this, the ABE Initiative and its impacts have attracted little academic interest, with most of the existing literature focusing on western-led programs. This exploratory study makes use of a three-phase mixed methods approach, combining large-scale survey data of former participants with in-depth case study data of former participants and qualitative interviews of program facilitators and in-field program coordinators. The study aims to assess the long-term contributions of the ABE Initiative to human resource development, socioeconomic development, and Japan's soft power in Africa, determining the mutual benefits to both the Japanese and African sides in addition to any limitations which can be addressed to improve the program further. In doing so, it aims to contribute to the broader literature on international aid scholarship programs by sharing Japanese practices, and it will allow policymakers and coordinators to make informed decisions on the ABE Initiative and similar scholarship programs in the future as the 9th Tokyo International Conference on African Development approaches in 2025.

**12:15-12:40**

88605 | *Developing an Online Learning Community Model Using Design Thinking to Create Innovation Among Community Enterprise Entrepreneurs: In-Depth Data Analysis*

Thanathnuth Chatpakkarattana, Sukhothai Thammathirat Open University, Thailand

Patthanant Bootchuy, Sukhothai Thammathirat Open University, Thailand

This research article aims to study opinions and conduct an in-depth analysis of community enterprise entrepreneurs and experts regarding developing an online learning community model using design thinking for innovation creation. Data were collected through in-depth interviews using semi-structured interview guides, divided into two sets as follows: 1) Interviews with key informants, totaling 10 individuals, who are community enterprise entrepreneurs in Nonthaburi Province, selected using purposive sampling; and 2) Interviews with 5 experts in various fields, including learning management, educational technology, design thinking, and innovation. The collected data were then analyzed using content analysis, categorized, and presented descriptively. The research findings indicate that an online learning community using design thinking should serve as a space that inspires the creation or innovation of new ideas, facilitated by gathering individuals with shared interests or goals. A critical element is the connection of networks with experts or specialists who can provide advice and share experiences with entrepreneurs, enabling them to develop products that meet customer or market needs. Additionally, creating an online learning community should involve the provision of accessible spaces, employing technologies that entrepreneurs are familiar with or regularly use, to facilitate easy access to information, foster engagement, and provide mutual support within the online community. The components of an online learning community using design thinking for innovation creation for community enterprise entrepreneurs should include individuals, knowledge, technology and communication tools, and activities or assignments to develop innovative outputs.

11:25-12:40 | Room 703 (7F)

# Thursday Onsite Parallel Session 2

## Higher Education

### Session Chair: Dianne Gloria

11:25-11:50

85584 | *Bridging the Gap Between Vietnamese and Western Higher Education Systems: A Comparative Case Study of Vietnamese Students' Experiences*

Kieu-Trinh Truong, Independent Scholar, Vietnam

Vietnam's higher education reform strongly advocates for learning from global best practices and achieving world-class standards, yet the gaps between the systems and strategies to bridge them remain unclear. This research aims to address these questions by examining the learning outcomes reported by students in Vietnamese and Western education systems, together with their curriculum components and learning activities that contribute to these disparities. Adopting a qualitative approach and a case study design, data were collected through seven semi-structured interviews employing triangulation techniques. The participants were Vietnamese students with similar 12-year general education backgrounds in Vietnam, but who later studied either in Vietnam (three students) or Western programs (four students). Using the constant comparative method and the comparative process adapted from Bereday (1964) for data analysis, the study reveals that both student groups recognise the crucial role of universities in preparing them for future careers. However, students in Western systems demonstrate notable development in critical thinking, academic competency, and in-depth knowledge, while students in the Vietnamese system report deficiencies in these outcomes, expressing dissatisfaction with their formal education and relying heavily on extracurricular activities for generic skill development. Factors contributing to these differences include the availability of scientific resources in libraries, the role of reading and writing in the learning process, and the implementation of constructivist teaching and learning approaches. This study argues that by addressing these areas, Vietnamese higher education can better prepare graduates to be independent thinkers and active contributors to the knowledge-based economy, and potentially achieve international recognition.

11:50-12:15

85522 | *Academic Drift: A New Trend in Higher Vocational Education (HVE) Reform*

Jia Li, The Education University of Hong Kong, Hong Kong

Ewan Wright, The Education University of Hong Kong, Hong Kong

Vocational education and training (VET) is pivotal for socio-economic development (OECD, 2023). China, as a major emerging economy, has experienced substantial transformations in its VET system since the 1980s (Xue & Li, 2022; Bai & Yan, 2016). Recently, integrating academic education into higher vocational education (HVE) has become a notable trend, mirroring reforms in many developed countries (Deissinger, 2005; Stasz & Grubb, 1991). China's VET system has been influenced by foreign models over the past decades, particularly Germany's VET system (Wang & Jiang, 2013). The academic shift led to establishing and upgrading up to 51 vocational universities in China, aiming to provide graduates with practical skills and academic degrees to meet the growing demand for a high-quality adaptive workforce. This study explores China's rationale for elevating HVE to the undergraduate level, comparing it with Germany's educational adjustments in response to the Bologna and Copenhagen processes (Powell et al., 2012) by vocationalization of higher education. It employs mixed methods approach to review educational policy documents and briefs from both countries since 2000, and analyze gross enrolment ratio in VET and tertiary education in both countries under the theoretical framework of "reference societies" (Steiner-Khamsi, 2022; Waldow, 2017). Findings imply that China's tailored implementation of transformative system transfers has significantly boosted HVE enrolment and better prepared a skilled workforce for the labour market. Aligning China's HVE with international standards also enhances its capacity for global collaboration with foreign educational institutions and free movement of skilled talents within different systems.

12:15-12:40

84528 | *Faculty and Students' Perspectives on Flexible Learning Towards the Development of Proposed Quality Assurance Framework for Hy-Flex Learning*

Dianne Gloria, Bulacan State University, Philippines

Quality assurance is a significant part of achieving Sustainable Development Goal 4 and has remained a challenge to higher education institutions worldwide. Thus, this paper aims to propose a quality assurance framework for Hy-flex learning based on the perspectives of faculty and students. This study utilized a descriptive developmental mixed-method research design following Ibrahim's (2016) procedures: analysis, design, development, and evaluation. Both students and faculty were the respondents to dissect the richness and beauty of the data collected using the self-developed survey questionnaire and interview protocol guide. The quantitative findings revealed both students and faculty preferred the utilization of flexible learning as their learning modality. Also, a significant difference when grouped according to UNESCO's quality and learning indicators is also observed in the study. The qualitative data yielded emergent themes from the focus group discussions, to wit: poor internet connection, assessment integrity, poor and improper schedule, learning resources and management system, and institutional support. Accessibility & Usability, Learning Assessment Strategies, Vision & Institutional Leadership, Learning Activities & Learning Interaction, Instructional Materials, Social & Student Engagement, Support (Student, faculty, & Staff), Course Structure, Learning Outcomes & Competencies, Evaluation & Feedback, Social & Student Engagement, Flexibility & Adaptability of Education, Security & Safety, and Infrastructure, Facilities, & Equipment were the following themes which were utilized to craft the QA Framework. The proposed framework provides a transparent and reliable framework for implementing, monitoring, and evaluating quality assurance of all hybrid-flexible learning modalities in the university.



11:25-12:40 | Room 704 (7F)

## Thursday Onsite Parallel Session 2

Higher Education

Session Chair: Edmund Centeno

11:25-11:50

87757 | *Understanding AI Acceptance in Accounting and Business Education: a Study of Lecturers' Optimism and Pedagogical Beliefs*

Tan Ming Kuang, Universitas Kristen Maranatha, Indonesia

Riki Martusa, Universitas Kristen Maranatha, Indonesia

Meythi Meythi, Universitas Kristen Maranatha, Indonesia

The development of Artificial Technology (AI) technology is proliferating and organizations are being implemented in many areas, including education. The numerous advantages offered by AI technology are expected to improve the quality of accounting and business education at the higher education level. To implement successfully AI in accounting and business education, it is essential to identify the factors that drive and restrict lecturers' intentions to use AI technology. This study attempts to extend a version of the Technology Acceptance Model (TAM) by introducing lecturers' optimism and pedagogical beliefs for explaining AI acceptance within accounting & business education. Survey data were collected from 400 lecturers in Indonesia and analyzed using PLS-SEM approach. The results reveal that the proposed model can explain 51% of the variance in accounting and business lecturers' behavioral intention to use AI in class. Specifically, lecturers with constructivist mindsets are more likely to use AI for education than lecturers with transmissive beliefs. Perceived ease of use, perceived usefulness, and optimism toward AI for education are crucial in determining lecturers' acceptance of AI in accounting and business education. This study implies the importance of stimulating lecturers to be more constructivist-mindset and the necessity of developing AI tools that are user-friendly and beneficial. In this way, lecturers are likely to become more optimistic and willing to implement AI in accounting and business courses.

11:50-12:15

86341 | *University of the Philippines Los Baños Students' Awareness and Attitudes Towards Artificial Intelligence in Education*

Edmund Centeno, University of the Philippines Los Baños, Philippines

Edgar Bagasol Jr., University of the Philippines Los Baños, Philippines

This study investigates the awareness and attitudes of students at the University of the Philippines Los Baños (UPLB) towards the use of artificial intelligence (AI) in education. An online survey was conducted among 663 students to assess their familiarity with AI in educational contexts and to gauge their perceptions towards its integration. Findings show that nearly all respondents had some level of familiarity with AI, with 30.6% reporting high familiarity and 51.9% indicating moderate familiarity. This suggests a strong potential for AI integration in educational settings, as students are already comfortable using these tools. Student's frequent use of AI for generating and proofreading texts (75.12%), creating presentations (46.34%), and quickly finding relevant information (59.19%) highlights AI's role in enhancing productivity and learning efficiency. Laptops (89.76%) and smartphones (55.28%) were the most common devices used to access AI, indicating a high degree of accessibility and convenience for students. Almost half of the respondents (47.7%) had teachers who either introduced or promoted the use of AI tools in their respective classes. The study identified several themes regarding the ethical and practical issues of AI use in education. These included academic integrity, AI dependency, reliability and veracity of information, and the need for clear policies and guidelines. The findings underscore the necessity for educational institutions to address these concerns proactively to ensure that AI integration enhances the learning experience of students without compromising academic standards.

11:25-12:40 | Room 705 (7F)

# Thursday Onsite Parallel Session 2

Online & Blended Learning

Session Chair: Santiago Moll-Lopez

11:25-11:50

82115 | *Challenges Encountered by the Junior High School Students and Their Academic Performance in the Online Learning During COVID-19*

Bernadette Cunanan, Polytechnic University of the Philippines, Philippines

Noel Bermudez, Polytechnic University of the Philippines, Philippines

The study delved into the myriad challenges faced by junior high school students amidst the pandemic, specifically focusing on their impact on academic performance. Utilizing a descriptive-correlational research approach, the study employed a meticulously crafted questionnaire as its primary data-gathering tool. Drawing data from a sample of 428 junior high school students enrolled at the Polytechnic University of the Philippines Laboratory High School, the study unearthed significant insights. Predominantly, student isolation and the altered learning environment emerged as the most formidable hurdles encountered. These challenges exhibited a noteworthy correlation with the academic performance of the respondents. Conversely, factors such as self-regulation, technological literacy, technological sufficiency, technological complexity, and learning resource challenges failed to demonstrate a significant relationship with academic performance. Consequently, it is suggested that school administrators orchestrate a series of webinars or seminars aimed at equipping students with strategies to navigate these challenges effectively. Furthermore, parents should be empowered through similar seminars to better support their children in the home learning environment. Additionally, educators are urged to maintain close vigilance over students' progress, ensuring timely intervention where necessary. By fostering a collaborative approach encompassing students, parents, and educators, the educational community can mitigate the adverse effects of these challenges and foster academic success amidst unprecedented circumstances.

11:50-12:15

88246 | *A Comparative Study of Implementing Different Blended Learning Modality: Effects to Students Conceptual Understanding*

Alexis Michael Oledan, Mindanao State University - Iligan Institute of Technology, Philippines

Rovic Perocho, Mindanao State University - Iligan Institute of Technology, Philippines

Maria Rebecca Flores, Mindanao State University - Iligan Institute of Technology, Philippines

Mary Joy Luga, Mindanao State University - Iligan Institute of Technology, Philippines

Dante Joma Zabala, Mindanao State University - Iligan Institute of Technology, Philippines

Grace Liwanag, Mindanao State University - Iligan Institute of Technology, Philippines

This study conducted an analysis comparing the utilization of the Station Rotation, Flipped Classroom, and Flex Model and assessed their effects on students' conceptual understanding about exponential functions. Utilizing an experimental research design, the quantitative data collected through pre- and post-test scores were analyzed using Paired T-Tests, non-parametric tests ANOVA, and two-way ANOVA. The result of the study revealed significant improvements over time within each blended learning modality. However, no significant differences were found between the different blended learning pedagogies which indicates similar baseline and post-test outcomes across all groups. Although there was a general effectiveness of the different interventions, variability in individual student improvement was noted. The analysis showed that time, rather than the specific blended learning modality, had a statistically significant effect on students' conceptual understanding measured through an achievement test. The findings of the study then suggest that while all blended learning modalities effectively enhance conceptual understanding over time, the choice of instructional approach may be flexible, offering comparable benefits in promoting deep learning and conceptual mastery.

12:15-12:40

86334 | *Navigating New Digital Learning Pathways: Balancing Engagement and Distractions in Higher Education*

Santiago Moll-Lopez, Technical University of Valencia, Spain

Erika Vega Fleitas, Technical University of Valencia, Spain

Luis Manuel Sánchez Ruiz, Technical University of Valencia, Spain

Sara Sánchez López, Technical University of Valencia, Spain

Jose Antonio Morano Fernandez, Technical University of Valencia, Spain

Alicia Herrero Debón, Technical University of Valencia, Spain

The rapid expansion of digital learning pathways offers unprecedented opportunities for enhancing educational engagement and accessibility in higher education. However, the proliferation of digital tools also presents significant challenges, particularly the risk of increased distractions. This study investigates the dual impact of digital learning on student engagement and academic performance, focusing on the strategies to manage distractions effectively. Conducted at the Universitat Politècnica de València, the research involved 325 students from various disciplines, utilizing a mixed-methods approach. Quantitative data were collected through surveys assessing students' use of digital learning platforms, their engagement levels, and academic performance. Qualitative insights were gathered from interviews to explore students' experiences with digital distractions. The findings reveal that while digital learning platforms enhance accessibility and provide interactive educational experiences, they also introduce numerous distractions, such as social media, gaming, and non-academic browsing. Students reported a struggle to maintain focus during online learning sessions, which negatively impacted their academic performance. However, those who employed structured digital detox strategies, such as setting specific study times, using productivity apps, and creating distraction-free study environments, demonstrated better engagement and improved academic outcomes. This study highlights the need for educational institutions to recognize and address the dual nature of digital learning pathways. By implementing comprehensive support systems, including digital literacy programs, time management workshops, and the integration of focus-enhancing technologies, educators can help students navigate the digital landscape more effectively. The paper concludes with practical recommendations for balancing the benefits of digital learning with the necessity of managing distractions.

11:25-12:40 | Room 707 (7F)

## Thursday Onsite Parallel Session 2

Inquiry and Project-based Learning

Session Chair: Martin Sviatko

11:25-11:50

85032 | *Do Student Debates Powered by Generative AI Improve Learning Outcomes? Exploring Debate as a Tool for Inquiry-based Learning (IBL)*

Yongzhi Seow, Ministry of Education, Singapore

Humanities education in Singapore at the secondary level emphasises the inquiry-based learning pedagogical approach as a means to engage students, inculcate critical thinking skills, and achieve the necessary knowledge and skills outcomes stipulated by the national curriculum. Inquiry-based learning is structured by a Humanities inquiry cycle involving four steps, and can take various forms in the classroom. In this paper, I explore the use of debate as an active learning tool to enact inquiry lessons in Social Studies, framed by the inquiry cycle and leveraging Generative AI tools. I ran 5 debates for two Grade 9 classes comprising 79 students over two schooling terms (20 teaching weeks). Student speakers were assigned for each debate, and all students formed teams to do research with the help of AI tools such as Chat GPT and Microsoft CoPilot. Through student survey data and teacher observations, I find that debates are powerful devices to build excitement and spark joy amongst students, but require a high degree of preparatory work and active student management from the teacher to achieve desired knowledge outcomes. As a teaching tool, debates can enhance thinking on narrow topics for a longer period of time especially for the speakers, and the lessons foster a positive learning environment and collaborative culture amongst students.

11:50-12:15

83590 | *Beyond Classrooms: How Project-Based Learning Fosters the Development of Emotional Competencies*

Martin Sviatko, CamEd Business School, Cambodia

This research paper aims to examine how project-based learning provides students with social and emotional development in general, and how it helps form one's fundamental emotional competencies in particular. The paper starts with an overview of the project-based learning practice and highlights its positive impacts on the cognitive skills of project participants. Because students' emotional abilities – along with their cognitive aptitudes – are often instilled as a direct result of project implementation, the paper contends that the key takeaway of project-based learning is the acquired emotional literacy of students. This quantitative research paper uses a descriptive research design, centered on a survey developed in line with the related literature. The research data was collected through a self-administered questionnaire, delivered in paper-and-pen format in June 2023. In total, 240 full-time university students participated in the survey. The structured questionnaire was presented in both English and the Khmer (Cambodian) language. The section of the paper which presents an analysis of collected data supports its central thesis: As a key academic instrument, project-based learning fosters the development of one's emotional competencies, which include self-awareness, empathy, as well as social skills in communication and teamwork. As this type of learning helps students to recognize and develop feelings about themselves, their peers, as well as the community they serve, or the society they are part of, project-based learning is validated as a highly effective teaching method, which continues to uphold its relevance despite a rapidly changing educational landscape.

11:25-12:40 | Room 708 (7F)

## Thursday Onsite Parallel Session 2

Foreign Languages Education & Applied Linguistics

Session Chair: Yi-Mei Wu

11:25-11:50

88211 | *Comprehending on Specific Semantic Meanings and Rhetoric Styles of Chinese Numerical Styles from the Aspect of Translation Strategies and Methods*

ZongJin He, Universiti Putra Malaysia, Malaysia

Ling Yann Wong, Universiti Putra Malaysia, Malaysia

Adi Yasran Abdul Aziz, Universiti Putra Malaysia, Malaysia

Chinese proverbs are a significant part of Chinese linguistic and cultural heritage. They are known for their widespread use and wisdom. However, previous research has not fully explored the depth and breadth of the numerical combination and conception used to form the Chinese numerical proverbs. Some scholars have considered numerical combination as imaginary or functional words to fulfil the amounts of Chinese characters in forming the Chinese numerical proverbs, neglecting their roles in forming the specific semantic meanings and rhetoric styles of Chinese numerical proverbs. As a result, accurately conveying the comprehensive and culturally relevant meanings of numerical conceptions to foreign students learning Chinese as a second language becomes challenging. This study aimed to assess the effectiveness of selected translation methods used in teaching Chinese numerical proverbs, specifically in translating and explaining the three-layered meanings (literal, semantic, and cultural) of numerical conceptions in Chinese numerical proverbs. This study involved 32 students from Malaysian primary schools, including Malaya, Indian, and Chinese students. A test was designed based on seven Chinese numerical proverbs, covering various aspects related to specific semantic meanings and rhetoric styles of the Chinese numerical proverbs. This test also evaluated the students' abilities to comprehend both the specific semantic meanings and rhetoric styles of the Chinese numerical proverbs. Through descriptive analysis using SPSS, the study found that after learning the basic information about Chinese numerical proverbs, the Chinese learners' grades significantly improved as two grades. This improvement indicates that they were able to understand the cultural meanings conveyed by

11:50-12:15

88299 | *Proper Modalities of Input Facilitate Incidental Vocabulary Acquisition: Evidence from Advanced Chinese EFL Learners*

Ying He, Nanjing University of Aeronautics and Astronautics, China

Siyu Wu, Nanjing University of Aeronautics and Astronautics, China

Previous research has largely focused on the effects of single input modalities on vocabulary acquisition, often overlooking the potential of multimodal teaching methods. This study addresses this gap by comparing the impact of reading, listening, and subtitled audiovisual input modalities in promoting incidental vocabulary acquisition among advanced EFL learners in China. We divided 40 advanced college English learners into 4 groups: a control group, a reading group, a listening group, and a subtitled audiovisual group. Participants took a pre-test, an immediate post-test, and a delayed post-test to assess vocabulary knowledge. The findings revealed that the subtitled audiovisual input modality led to the most effective immediate vocabulary acquisition, though its impact decreased over time. Conversely, the listening modality was associated with the most sustained vocabulary retention. These results highlight the importance of input modality in vocabulary acquisition, suggesting that while subtitled audiovisual materials can enhance short-term learning, listening exercises are more effective for long-term retention. The study offers insights for language instructors aiming to enhance vocabulary teaching strategies through multimodal input.

12:15-12:40

88178 | *Effects of Flipped Classrooms on English Vocabulary Learning and Motivation in Taiwanese Elementary School Students*

Yi-Mei Wu, National Tsing Hua University, Taiwan

Pannaporn Kaewmark, National Tsing Hua University, Taiwan

Li-Tang Yu, National Tsing Hua University, Taiwan

The Flipped Classroom Approach (FCA) has emerged as a promising pedagogical strategy to enhance student motivation and engagement in educational settings. In FCA, students prepare for lessons before attending class and participate in interactive tasks during class time. Although numerous empirical studies have examined the application of FCA to examine English language learning outcomes in university settings, its implementation in elementary education remains under-explored. To address this research gap, this study investigates the impact of FCA on English vocabulary learning and motivation among Taiwanese elementary school students. The study was conducted during the spring semester of 2024 and involved sixth-grade students from two classes in a public elementary school in northern Taiwan. One class received conventional English instruction and served as the control group, while the other participated in flipped classroom instruction as the experimental group. Pre- and post-tests for vocabulary, along with motivation surveys, were administered at the beginning and end of the project to measure vocabulary learning and motivation development. Additionally, semi-structured interviews were conducted at the end of the project to gather participants' perspectives on their experiences with FCA. The findings suggest that, compared to conventional instruction, FCA more effectively promoted vocabulary knowledge and increased learning motivation among elementary school students. Furthermore, students expressed positive attitudes toward FCA in their English learning. Pedagogical implications are discussed to conclude the study.



## Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

12:55-14:35 | Room 601 (6F)

# Thursday Onsite Parallel Session 3

Challenging & Preserving Culture, Inter/Multiculturalism & Language

Session Chair: David Kergel

12:55-13:20

84509 | *Soft Skills in a Multicultural Society Context: A Case Study of Teaching Profession Students in the Southern Border Provinces of Thailand*  
Maithai Chaiyapan, Sukhothai Thammathirat Open University, Thailand  
Jirasuk Suksawat, Sukhothai Thammathirat Open University, Thailand  
Purimpratch Khaninphasut, Sukhothai Thammathirat Open University, Thailand  
Putcharee Junpeng, Khon Kaen University, Thailand

Developing soft skills in the teaching profession students are important for teachers to facilitate the learners to learn to live together peacefully the society. This research aims to investigate the soft skills in a multicultural society of the teaching profession students in the southern border provinces of Thailand through a qualitative method using the phenomenological approach. Data are collected by the researcher through in-depth interviews with 10 stakeholders and content analysis. The results have found four main topics: (1) Communication and relationship, building consisting of speaking, writing, and body language used to communicate and build relationships with people in a multicultural society. (2) Working with other people, consisting of co-working with others, joining together, taking initiating, coordinating, helping, and supporting other people in a multicultural society. (3) Adaptation, consisting of changing one's own ideas, feelings, and behaviors to suit the environment in the society of different cultures. (4) Accepting cultural diversity, consisting of learning the cultures of other people by showing respect for their differences. The results of this study provided an understanding of the development of soft skills among teaching profession students in a multicultural society. The conclusion and application of research results for educators, researchers, and counseling psychologists to promote the development of soft skills leading to quality teacher development were discussed and presented in this article.

13:20-13:45

84679 | *Challenges of Language Learning in a Multicultural Context: International Students Learning BIPA (Bahasa Indonesia bagi Penutur Asing) in University Level*  
Aldian Idris Febrianto, Yogyakarta State University, Indonesia  
Joko Priyana, Yogyakarta State University, Indonesia

This study examined the challenges international university students faced learning Bahasa Indonesia bagi Penutur Asing(BIPA). The research examined the challenges these students faced from diverse linguistic, cultural, and educational backgrounds. This research used a mixed-methods approach, incorporating quantitative survey data and qualitative interviews to understand these problems. The research sample was 30 international students studying at Universitas Negeri Yogyakarta. Purposive sampling was employed for the questionnaire, which was based on the Likert scale, and random sampling was used for the interviews. The data analysis techniques utilized include thematic analysis to extract meaningful patterns from the collected data. A significant issue identified was the language barrier. The grammar and vocabulary of Bahasa Indonesia differed from the students' native languages, causing them to struggle. Pronunciation and intonation further hindered communication. Additionally, understanding cultural nuances required cultural immersion and sensitivity. The students' diverse educational backgrounds affected their preparedness and familiarity with Indonesian university teaching, slowing their learning and comprehension. The findings of the study revealed that teachers need to adapt their methods in multicultural classrooms. Institutions also should provide language labs and cultural orientation programs to help international students overcome these challenges. Additionally, researchers recommend improving teacher training to meet the needs of diverse students. The research informs these proposed solutions by highlighting specific difficulties faced by students, such as linguistic differences and cultural misunderstandings.

13:45-14:10

88317 | *Integrating Identities: Cultural Competence and Well-Being for Enhanced Performance*  
Kavitha Balakrishnan, Multimedia University, Malaysia  
Ajitha Angusamy, Multimedia University, Malaysia  
Madhubala Bava Harji, Segi University, Malaysia

Intercultural intolerance, misunderstandings, and ethnocentric sentiments prevail in multicultural societies. Education institutions are the flagbearers of a pluralist society and contribute to the economic and social development of a country. Cultural diversity provides interaction opportunities, reduces prejudices, and enhances global citizenry and unity. Educators, as transformation and change agents, instill these values and skills in the younger generation. Investigating the experiences of educators in a multicultural context is pertinent, especially because these individuals share a larger goal of social integration. This study uses structural equation modelling to investigate the factors that influence multicultural identities, intercultural competencies, well-being, and performance from the perspective of the social identity integration framework's cognitive-developmental model. Multistage sampling via self-administered survey method involved 288 educators from Malaysian universities. The findings confirmed that both the exogenous constructs (multicultural identity and intercultural communication competence) are relevant predictive factors to assess well-being and performance. The significance of the study adds to the body of knowledge by providing practical implications related to predictors of multicultural team performance. The study appears to be the first to combine multicultural identity, intercultural communication competence, and well-being factors in predicting performance. It also contributes to the existing knowledge and arguments to necessitate cultural awareness, training, and coaching programs for employees to contend with the cultural mix and complications of organisations. Moreover, the variables and instruments used in this study can be replicated in any multiracial organisation or institution. The findings can be used to ensure a balanced distribution of multiethnic academics in educational institutions.

14:10-14:35

82185 | *Different but the Same – Past and Future of Easterns and Western Pedagogy*  
David Kergel, International University of Applied Sciences, Germany

The lecture represent the results of the research project "Bildung between the World, a Transcultural and Socio-epistemological Approach to Pedagogy." The main goal is to sketch fundamental assumptions and the first transcultural conclusion of the research project. The lecture explores the fundamental differences and similarities between European and Eastern pedagogy by focusing on historical developments, traditional approaches and future perspectives. Humanistic ideals and philosophical currents strongly influence European pedagogy, while Chinese pedagogy reflects a long history of Confucianism, Daoism and Legalism. Using a comparative genealogical approach, the different educational philosophies and practices, the shared values and practices between Eastern and Western pedagogy, and their impact on students, teachers, and academic institutions are analyzed. Based on this, the lecture will also look at current challenges and opportunities arising from global trends such as digitalization, internationalization, and the pursuit of excellence. It will explore how a transcultural approach to Eastern and Western pedagogy can be used appropriately to address these challenges.

12:55-14:10 | Room 603 (6F)

## Thursday Onsite Parallel Session 3

### Design, Implementation & Assessment of Innovative Technologies in Education

**Session Chair: Raquel Adriano**

**12:55-13:20**

79700 | *Pioneering Educational Frontiers: The Current and Future Collaborative Landscape of South Korea and ASEAN Countries in Big Data Integration*

Ella Joy Ponce, Ewha Womans University, South Korea

Catherine Joy Escuadra, Ewha Womans University, South Korea

This study aims to describe and analyze, using an international relations (IR) lens, the current publication, collaboration, and topic trends of research on big data and education in South Korea and the ASEAN region and identify future strategies to enhance it. The status of big data and education publications was explored using scientometric methods by extracting publications in Web of Science and analyzing them using R Studio and VOSViewer. Also, relevant publications were reviewed to determine possible strategies. A review of 2,427 publications revealed that the publication, citation, and collaboration for big data and education in South Korea and the ASEAN region have increased these past years. Key topics identified were using big data for teaching and performance assessment, the intersection of big data and artificial intelligence, and the implementation framework of big data in education and other industries, which varied across countries. The strategies identified for the future included establishing collaborative networks, organizing joint research projects, facilitating exchange programs, investing in infrastructure and resources, seeking funding opportunities, developing joint policy frameworks, and engaging industry partners. This study provided a comprehensive understanding of the current status of big data and education in South Korea and ASEAN by examining and evaluating publication trends, international collaboration, critical topics in research publications through IR lenses, and possible strategies for advancing big data integration in education. By embracing big data and implementing effective strategies, stakeholders can contribute to advancing and optimizing education systems in South Korea, the ASEAN region, and beyond.

**13:20-13:45**

83694 | *Learning to Improve Book Resource Operational Systems (LIBROS) in Cambodia: The Case of Track and Trace (TnT)*

Phoury Bun, Cambodia Development Resource Institute, Cambodia

Sopheak Song, Cambodia Development Resource Institute, Cambodia

Jeongmin Lee, University of Notre Dame, United States

Penelope Bender, University of Notre Dame, United States

Books are one of the most significant enablers of children's academic achievement. Nevertheless, shortages of books persist in many developing countries, including Cambodia. In response, Cambodia piloted a digital solution called Track and Trace (TnT) in 2017 and fully adopted the application in 2020 to manage textbook supply nationwide. This study applied a case study design with multiple sources of data to (i) study TnT's characteristics and its perceived impacts, (ii) examine factors critical to its development and implementation, and (iii) identify the remaining challenges encountered by the stakeholders. We used primary data from an online survey of 807 primary schools across Cambodia and 31 semi-structured interviews with key stakeholders. The analyses show that TnT saved time, finances, and human resources, improved textbook accessibility, and promoted transparency and accountability. Five critical factors were found to be the main drivers of the development and implementation of TnT: long-term vision and leadership commitment, information technology, user commitment, training and capacity development. The COVID-19 pandemic was also a significant accelerator of this digital solution. Nonetheless, we observed some persisting challenges in adopting TnT, including the digital divide between schools in urban and rural areas, the TnT interface's limited user-friendliness, high expenses for improvement and insufficient funding, inadequate user training and guidance materials, and a lack of engagement among some users. Stakeholders should collaborate to ensure equal digital access and provide TnT training, and local services should be hired to improve TnT functionality and enable flexible school-level access.

**13:45-14:10**

85255 | *Digitizing Instructional Resources: Development of Learning Materials Repository Hub (LMRH)*

Raquel Adriano, Bulacan State University, Philippines

Joseline Santos, Bulacan State University, Philippines

Marian Minelli Cruz, Bulacan State University, Philippines

Gerriper Bernardo, Bulacan State University, Philippines

Eunice Custodio, Bulacan State University, Philippines

Mayleen Dorcas Castro, Bulacan State University, Philippines

The study employed a developmental approach to create a Learning Materials Repository Hub (LMRH) for the K-12 program of the Department of Education (DepEd). This involved digitizing learning resources and developing Digitized Learning Materials (DLM) based on the Alternative Delivery Mode Learning Resource (ADMLR) standard. Graduate School students enrolled in the first trimester of the school year 2022-2023 were tasked to develop the DLM as a requirement for their subject, Computer Education. Developed DLMs underwent language editing and acceptability evaluation by DepEd experts. The LMRH was designed and developed using website development software, categorizing DLMs by subject and grade level. Testing was conducted to ensure the functionality of the hub. The Evaluation and Review Criteria for New Non-PRINT Resources provided by DepEd were utilized. The Content Quality ( $\bar{x}=3.64$ ), Instructional Quality ( $\bar{x}=3.56$ ), Technical Quality ( $\bar{x}=3.64$ ), and Structure of the Material ( $\bar{x}=3.51$ ) composed the overall mean of 3.59, interpreted as Very Satisfactory. The Technology Acceptance Model (TAM) is composed of Perceive Usefulness ( $\bar{x}=3.65$ ), Perceive Ease of Use ( $\bar{x}=3.61$ ), Attitude Toward Using ( $\bar{x}=3.68$ ), and Intention to Use ( $\bar{x}=3.69$ ) composed an overall mean of 3.66, interpreted as Strongly Agree. To ensure quality, IT experts and teachers evaluated the system through the System Usability Scale (SUS), which garnered a total score of 93.33 and 74.07, interpreted as excellent and good, respectively. Results indicate that the system is appropriate for the intended users.

12:55-14:10 | Room 604 (6F)

## Thursday Onsite Parallel Session 3

Design, Implementation & Assessment of Innovative Technologies in Education (Workshops)

Session Chair: Luan Au

12:55-13:45

85103 | *Design and Development of an Institutional Learning Analytics System*

Hui Meng Er, IMU University, Malaysia

Learning analytics is a tool for gathering, analysing, and interpreting data related to student's learning preference, engagement and performance, for the purposes of understanding and optimising learning and the environments. The outcomes could be utilised to predict student retention, understand their learning behaviour, and improve their learning via providing personalised feedback and support. The development involves data collection, storage, data cleaning, integration, analysis, representation and visualisation, and action. A multi-disciplinary team effort is required to successfully complete this process. The state of development of LA varies in different countries depending on the cultural context, educational technology, ethical factors, and intention of strategic drivers. Globally, there is an increase in awareness of the potential of LA to support self-regulated learning and personalized learning in recent years, and this is reflected in the intensive interest around this topic in academic conferences and education technology exhibitions. In this workshop, the theoretical frameworks that guide the design of a learning analytics system are introduced. During the interactive session, the participants will identify the stakeholders needs and types of data that are relevant to the development of learning analytics system. Issues related to data quality and ethics will be discussed, and the participants will be guided to propose feasible solutions using a systematic approach. The workshop objectives are to identify data that provide insights about students' learning behaviour, progress and performance and discuss the impact of data integrity and ethical issues in implementation of learning analytics.

13:45-14:35

82635 | *How Can the Validity of Workplace-Based Assessment Tools Be Ensured in Outcome-Based Education?*

Luan Au, University of Medicine and Pharmacy at Hochiminh City, Vietnam

My Do, University of Medicine and Pharmacy at Hochiminh City, Vietnam

Hien Nguyen, University of Medicine and Pharmacy at Hochiminh City, Vietnam

Mai Nguyen, University of Medicine and Pharmacy at Hochiminh City, Vietnam

Background:

In competency-based medical education (CBME), workplace-based assessment (WBA) aims to provide stakeholders with evidence of learner competencies. Hence, ensuring the validity of the WBA processes is crucial.

Learning objectives:

By the end of this workshop, participants are able to:

1. Analyze the most common issues related to validating a WBA tool.
2. Build a feasible plan to enhance the effectiveness of their current WBA process.

Workshop description:

Firstly, participants should determine the aims of assessing task performance in a real-life context. The discussion should focus on the potential ability of WBA, which includes scoring, generalizing, extrapolating and judging learners' competencies.

Next, participants should present their viewpoints on choosing the ideal format for assessing task performance in a real-life context.

The discussion should focus on the pros and cons of using a non-specific, multi-purpose tool and a series of specific, rubric-based tools.

Discussion should reveal the relationship between the WBA format and the inference ability.

Then, the discussion continues with the assessment agenda, including the agenda itself and its potential impacts on the learning process.

Participants will provide their viewpoints on the advantages and disadvantages of performance fixed and flexible, on-demand agenda.

Participants should exchange their viewpoints on collecting feedback from various stakeholders and using feedback (coding, analyzing, implementing) to improve the validity of their WBA tools.

Finally, participants should determine activities that ensure appropriate learning behaviors (e.g. how to support self-reflection and enhance peer evaluation effectiveness) and effective teacher-learner communications during WBA (e.g. training professional skills).



**12:55-14:10 | Room 604 (6F)**

# **Thursday Onsite Parallel Session 3**

**Nurturing Creativity & Innovation: New Innovative & Radical Education**

**Session Chair: Mohd Nor Shahizan Ali**

**12:55-13:20**

85558 | *An Alternative Approach to Education Practices: A Qualitative Study on the Emergence of Education Influencers*  
Yen-Chen Chiang, National Sun Yat-sen University, Taiwan

As social media environment proliferates, it has become a predominant source where people obtain information. In the education context, a novel role “education influencers (EDUI)” has emerged. This role can be found in various scenarios and different forms. For instance, we see teachers gain celebrity by sharing their innovative teaching methods within online communities. There are also educators establishing non-profit organizations to advocate specific education ideas. These all pose significant impacts to the field of education. Previous studies have largely touched on the observable aspects of education influencers such as their actions or behaviors. This study aims to bridge the research gap by exploring the underlying context of the role of education influencers. The study employs semi-structured, in-depth interviews with education influencers from diverse domain in Taiwan. Open-ended around the development process of their roles and their perceptions are asked. The results after a thematic analysis of the interview responses reveals three major themes. 1) EDUIs share similar personalities which drive them to alternative paths of education practices. 2) EDUIs initiate the influencer works by emulating predecessor models. 3) A “flywheel effect” is found in the influencer work, serving as an enhancement leverage. The researcher concludes that the role of education influencer is worth-promoting to inspire and empower more passionate, diverse practitioners to contribute to and enrich the field of education. Concurrently, there is a need to explore a broader range of influencer activities to further expand the potentialities in this area.

**13:20-13:45**

85196 | *Educational Exploration in The Disney Wonder's Kids Clubs*  
Victoria Zinga, Brock University, Canada  
Dawn Zinga, Brock University, Canada

This paper focuses on how Disney imagineers’ designed the Disney Wonder children's areas to foster educational discovery and play-based learning. Throughout these spaces immersion and theming are taken to a new level including hidden treasures and Easter eggs throughout the two main club areas, inciting exploratory play, parallel play, and educational experiences. Regular programming by youth counsellors and guest appearances by Disney characters support creative and educational activities. Children opt in or out of scheduled activities and programming to effectively design their own experiences and learning journeys. Through the analysis of various themed aspects such as Avengers missions, visiting Oaken Sauna, and exploring nautical skills, this paper focuses on how Disney's approach to fostering educational discovery and play-based learning can be embedded in curriculum innovation and design. While some of Disney's theming around exploration-based learning is done on a grand scale that is difficult to replicate in educational contexts (e.g. shrinking to toy size in Andy's room) many of the principles and approaches can be applied to existing curriculum to enhance young children's learning. Specific principles and themed approaches are applied to educational contexts and discussed in terms of how to engage younger children in educational discovery and foster a love of learning. Additionally, there will be some discussion of how to take elements of gaming and game design and express them in physical educational spaces. Lessons learned from themed educational experiences provide important insights into designing experiential learning within educational contexts that engages children.

**13:45-14:10**

88349 | *Reshaping Visual Learning Through the Design Thinking Model: Board Games and Dyslexic Children's Mastery of Malay Proverbs*  
Mohd Nor Shahizan Ali, Universiti Kebangsaan Malaysia, Malaysia  
Neesa Ameera Mohamed Salim, Universiti Teknologi MARA, Malaysia  
Noor Alaudin Abdul Wahab, Universiti Kebangsaan Malaysia, Malaysia  
Karim Harun, Universiti Kebangsaan Malaysia, Malaysia  
Ammar Redza Ahmad Rizal, Universiti Kebangsaan Malaysia, Malaysia  
Norashikin Hamzah, Dyslexia Association of Malaysia, Malaysia

This study explores the design and use of an educational board game as a pedagogical tool to introduce Malay proverbs. It focuses on demonstrating the creative process through the Design Thinking Model by discussing the board game's potential to enhance linguistic, cognitive, and social skills, particularly in facilitating the understanding of Malay proverbs through a creative and engaging approach within the Malaysian cultural context. The study integrates the concept of design thinking into five core competencies: “exploring the problem, gaining insight, creative design, prototyping, as well as analysis and iterative optimization,” based on a detailed examination of the design thinking framework. A total of 112 mild dyslexic learners (ages 8 to 10) from the Dyslexic Association of Malaysia participated in this study. Qualitative data, including the final product of the board game, focus group discussions, and observations, were collected. Results suggest that the Design Thinking Model presents an effective approach for combining design (board game) with motivational factors (reward systems and series of challenges), forming a favorable active methodology. The learners were highly engaged, which justifies the increase in their motivation to learn Malay proverbs.

12:55-14:10 | Room 607 (6F)

## Thursday Onsite Parallel Session 3

Education, Sustainability & Society: Social Justice, Development & Political Movements

Session Chair: Suryanti Suryanti

12:55-13:20

84029 | *Exploring Teacher Experiences in Service Learning for Sustainable Development: A Case of a Higher Education Institution*  
Mark Joseph Cancino, Ateneo de Manila University, Philippines

Higher education institutions (HEIs) are mandated to contribute to sustainable development through teaching, research, and extension service. Service learning can be considered as a suitable educational framework in education for sustainable development as it inherently has the potential to develop practices contributing to sustainable development practices. Despite this, there is a need to clarify what service learning is among teachers and for them to adapt their reflexivity in the design and implementation of the program. This study fills this gap by focusing on building the capacities of educators by first understanding their experiences in using service learning for sustainable development. This leads to the research question: what are the experiences of teachers of a private higher education institution in utilizing service learning for sustainable development? This study addresses the research question through a case study involving four teachers in a private higher education institution in the Philippines. Data were gathered through semi-structured in-depth online interviews, and analyzed through thematic analysis. The study provides recommendations to sustain the impact of service learning for sustainable development: embed service and sustainability in the institution, form reciprocal relationships among stakeholders, acknowledge teacher reflexivity, engage students throughout the process, ensure balance between theory and practice, negotiate service in service learning, develop critical and reflective thinking among students, and assess its impact on the stakeholders.

13:20-13:45

88568 | *Sustainable City Project: STEAM Project to Enhancing Eco-Literacy in Elementary School Students*  
Suryanti Suryanti, Universitas Negeri Surabaya, Indonesia  
Wahono Widodo, Universitas Negeri Surabaya, Indonesia  
Nadia Lutfi Choirunnisa, Universitas Negeri Surabaya, Indonesia

This study aims to explain the impact of sustainable city projects on enhancing the eco-literacy of elementary school students and developing students' eco-literacy abilities throughout the process of creating sustainable city projects. The sustainable city project involves designing and organizing a future city focusing on sustainability, including environmental friendliness, health, and cleanliness, to improve quality of life. This study employs a mixed-methods sequential explanatory design, with the participation of 28 fourth-grade elementary school students aged 9-10 years. The pre-test and post-test data are utilized for quantitative data analysis with eco-literation indicators, including knowledge, attitudes and skills. At the same time, the examination of the quality of sustainable city design preparation in the worksheet is conducted qualitatively. The findings demonstrated a substantial disparity between the pretest and posttest outcomes of ecoliteration, with the posttest average significantly surpassing the pretest average as indicated by the t-Test. This is corroborated by students who offer scientific justifications pertaining to the design of their sustainable city infrastructure and demonstrate commendable test outcomes. In addition, interviews with students reinforced the conclusion that sustainable city projects can improve the eco-literacy of elementary school students.

13:45-14:10

87043 | *Transforming Academic Teaching Methods for Professional Practice*  
Joannie Lumbao, National University Manila, Philippines  
John Bernard Alejo, National University Manila, Philippines  
Marcjoseph Yatco, National University Manila, Philippines

The architecture industry in the Philippines is currently facing significant challenges, notably the widespread issue of illegal and unethical practices among professionals. This situation raises important questions: Are these issues due to a blatant disregard for the law, a lack of understanding among graduates, or shortcomings in how professional practice is taught in academic institutions? Recent reports from the Special Committee on Anti-Illegal Practice of the United Architects of the Philippines highlight that many involved in these unethical activities are architecture graduates. These individuals include students, registered and licensed professionals, non-registered yet licensed individuals, and even those not related to the field of architecture. While the principle that ignorance of the law excuses no one is well-established, there is a critical need to ensure that students genuinely understand the legal and ethical standards required in their profession. Traditional educational methods, which often involve merely reading legal provisions, do not foster a deep comprehension of these standards. To address this issue, I propose an experiential learning approach that incorporates real-world scenarios and case studies into the curriculum. This approach includes the integration of Interactive Workshops, Role-Playing Simulations and Debates, Guest Lectures and Mentorship, and Project-Based Learning. This experiential learning approach aims to instill a profound understanding of legal and ethical responsibilities in future architects, thus addressing the root causes of illegal and unethical practices and contributing to the revitalization of the architecture profession in the Philippines.

**12:55-14:10 | Room 608 (6F)**

# **Thursday Onsite Parallel Session 3**

**Professional Training, Development & Concerns in Education**

**Session Chair: Gembo Tshering**

**12:55-13:20**

88330 | *An Insight into the Ways System and School Contextual Factors Shape Situated Professional Learning*

Shu-Shing Lee, Nanyang Technological University, Singapore

Alexius Chia, Nanyang Technological University, Singapore

Thana Luxshme Thaver, Nanyang Technological University, Singapore

Kalaivani Ramachandran, Nanyang Technological University, Singapore

Qizhong Chang, Nanyang Technological University, Singapore

Sarinajit Kaur, Academy of Singapore Teachers, Singapore

Professional learning is key to teacher growth. There are reconceptualisations of teacher learning from professional development to situated professional learning (SPL) to acknowledge how professional learning needs to be embedded in teaching and learning contexts. SPL has complexities as schools navigate policy directives, school's needs, and teachers' readiness to sense make and develop SPL approaches. This paper describes system-level policies and schools' needs that shape SPL. This paper adopts a multiple-case study design. The study involves 2 primary and 2 secondary schools in Singapore. Semi-structured interviews were conducted with school leaders, key personnel and teachers to form the primary data source. Thematic analyses were employed. Findings describe schools' contextual factors and its influences on SPL. Findings show that schools use system level policies and directives to guide their SPL directions, supports, and approaches. Schools engage in SPL because they want to develop teachers for student-centred learning and holistic development. Schools' SPL approaches vary according to different priorities and teachers' readiness. Schools generally adopt a top-down, bottom-up approach for SPL but the mix varies according to schools' contextual factors. Findings show that schools recognise the importance of understanding teachers' needs and forming a team to lead the overall SPL approach. School leaders leverage different overarching vision and collaborate with a team to steer SPL. Schools tap on different ways of understanding teachers' needs and readiness to inform SPL. Findings contribute by showing the interplay between system and school factors in shaping SPL. Teacher factors play a crucial role in shaping SPL.

**13:20-13:45**

87740 | *A Reflection-Based Self-Coaching Web-Based Platform for University Students on Work Attachments*

Rendell Tan, Singapore Institute of Technology, Singapore

Students enrolled in the Aircraft System Engineering degree program at the Singapore Institute of Technology (SIT) undertake an 8-month industry attachment as part of their curriculum. During this period, they are required to submit bi-weekly workplace learning reports to their academic supervisors. To enhance the engagement and learning experience of these students, a web-based platform titled "GROW-Pro" was conceptualized and developed. This platform integrates the GROW coaching model by John Whitmore, Andragogy principles by Malcolm Knowles, and David Kolb's Experiential Learning Cycle. Prior to their attachment, students, who are considered working adults, identify professional traits they wish to develop and set specific targets for the duration of their attachment. They reflect on and journal their professional traits development monthly, receiving feedback and encouragement from their academic supervisors. Initially implemented in 2021, students submitted their reflections via email in PDF format. A survey conducted before and after the attachment period indicated significant improvements in professional traits, with students providing positive feedback on the virtual engagement with their academic supervisors. In 2023, the GROW-Pro concept received university funding and was transformed into a fully digitalized web-based and mobile application. Enhancements included the incorporation of industry supervisor and peer feedback on workplace performance. GROW-Pro is now a fully functional platform in SIT, facilitating a more engaging and effective coaching experience that fosters a growth mindset among students.

**13:45-14:10**

88761 | *Thailand's Educational Personnel Development System*

Parinya Meesuk, Rajamangala University of Technology Thanyaburi, Thailand

Sonthaya Jindamook, Secretariat Office of the Teachers Council of Thailand, Thailand

Monthip Niyompan, Secretariat Office of the Teachers Council of Thailand, Thailand

This research aimed to synthesise Thailand's Educational Personnel Development System and its relationship of systems. The sample consisted of teachers, school administrators, educational administrators, educational supervisors, university teachers, and pre-service teachers. There were a total of 4,790 people from volunteer sampling. The results found that the current educational professional system consists of 6 main systems: Professional Standards System, Professional Production System, Professional Regulation System, Professional License System, Professional Development System, and Honoring and Upholding of Professionals System. The operation of each professional system was different according to the nature of the profession. There was a relationship that had a continuous and systematic effect from a very small to a very large level and differed among each type of profession. It can also synthesized the mechanisms to promote the operation of the 6 professional systems that will be a guideline for the Teachers Council of Thailand to use as a policy proposal in developing the educational professional system for all groups of educational personnel in Thailand as well.

**14:10-14:35**

88168 | *Transforming Teaching and Learning at the Royal University of Bhutan Through Targeted Needs Assessment*

Gembo Tshering, Royal University of Bhutan, Bhutan

To ensure ongoing relevance and effectiveness, teaching and learning in higher education institutions must undergo regular reviews and targeted interventions. This study undertook a comprehensive needs assessment to guide the development of targeted professional development (PD) programs in teaching, learning, and assessment in the nine colleges of the Royal University of Bhutan. Employing a convergent parallel mixed-methods design, data were collected from 318 faculty members through a mixed-methods survey questionnaire. This instrument integrated established tools, including the Approaches to Classroom Assessment Inventory Version 3, Teaching Competencies Scale, and Revised Approaches to Teaching Inventory, ensuring a robust evaluation of faculty needs. Typically, needs assessment studies use one of these instruments, resulting in a partial understanding of the needs. The findings revealed a significant and pressing demand for PD initiatives focusing on student-centered teaching strategies, innovative assessment approaches, using assessment data to inform instructional activities, providing qualitative feedback, and understanding 21st-century learners. Furthermore, the study uncovered considerable variation in professional development needs across the different colleges, underscoring the necessity for customized and tailored PD programs to each institution's unique contexts and challenges, highlighting the critical importance of continuous, need-based professional development initiatives. The study also discusses the implications of these findings for designing and implementing effective PD programs, offering insightful and practical recommendations for institutional leaders and policymakers. Drawing upon a framework built from this study, PD initiatives at the Royal University of Bhutan are now being implemented and funded by the Erasmus Plus Programme.

12:55-14:10 | Room 703 (7F)

# Thursday Onsite Parallel Session 3

## Higher Education

### Session Chair: Jacqueline Joy Lising

12:55-13:20

85430 | *Factors Influencing University Selection and Future Educational Trends: A Survey of Thai High School Students Applying to Study at KMUTT*  
Somsri Binraman, King Mongkut's University of Technology Thonburi, Thailand  
Suchapa Netpradit, King Mongkut's University of Technology Thonburi, Thailand  
Chanin Tungpantong, King Mongkut's University of Technology Thonburi, Thailand

This study investigates the factors influencing Thai high school students' university selection decisions and their perceptions of future educational trends. A survey was conducted among 139 applicants of KMUTT to technology-related programs in the 2023 academic year. The majority of respondents were female students (57%) recent high school graduates (around 18 years old) from public schools (86%) from all over Thailand. Regarding academic background, 45.32% graduated from the Science-Math stream, followed by Arts-Mathematics (25.18%) and Language Arts (14.39%). The dominant student interest resided in science and technology fields integrated with art and design (43.17%). A significant portion (33.09%) expressed interest in Education or Industrial Education, Engineering (9.35%) and Business Management (5.04%). The Architecture, Fine Arts, Communication Arts, Mass Communication, and Law drew interest from a smaller percentage of students. Perceptions of future educational trends were largely consistent. Most students anticipated a shift towards blended learning, a focus on analytical thinking skills, and the integration of AI and robotics in teaching. University selection factors were evaluated using a 5-point scale. "Better career opportunities" received the highest score (mean = 4.61), followed by "support from family" (mean = 4.56) and "meeting personal needs" (mean = 4.42). Issues that still need to be addressed include providing sufficient information for University program admission and promoting student preparation for further study. This survey provided valuable insights for universities to design learning programs that cater to current high school students' evolving needs and aspirations. Additionally, analyzing applicants' information could help schools enhance their guidance for students.

13:20-13:45

85632 | *Barriers to Higher Education Access in the Republic of Kazakhstan*  
Nazym Shaikhina, SDU University, Kazakhstan  
Dana Duskaliyeva, SDU University, Kazakhstan

This study examines the challenges of accessing higher education in Kazakhstan and evaluates its equity for all students. The primary goal is to identify and analyse the main barriers that hinder access to higher education. The methodology uses McCowan's three-dimensional approach to determine when access to higher education is considered fair in the Kazakhstani context. The dimensions include availability (distribution of educational facilities), accessibility (access to resources), and horizontality (power dynamics in university rankings). Through describing each dimension with the capability approach, identified conversion factors are evaluated as barriers to access. To identify these conversion factors, a mixed analysis is conducted. This includes a secondary data analysis of reports on educational resource distribution, regional income levels, and enrollment rates, covering approximately 327,000 school graduates from all regions of Kazakhstan for 2022 and 2023. Additionally, we conducted semi-structured interviews focusing on students' study conditions at schools, opportunities for tutoring, socio-economic backgrounds, and access to universities. The interview is based on purposive convenience sampling of 10 urban and 10 rural teachers/professionals from Kazakhstan. The results indicate that rural students face significant barriers, such as socio-economic disadvantages, lack of funding, and fears of moving to bigger cities, making access to higher education less likely compared to their urban counterparts. The study concludes that policy reforms are necessary to address these disparities and improve resource distribution. Future research should focus on collecting primary data to gain a deeper understanding of the specific challenges faced by students in different regions and socio-economic strata.

13:45-14:10

85566 | *Does Money Matter? Expenditure on Students and Its Impact on Suspensions and Dropouts at Taiwan's Public Universities*  
Ted Chang, National Academy for Educational Research, Taiwan

This study investigates the relation between Taiwan's public university expenditure on students and the suspensions and dropouts among different degree systems. If more school spending is allocated to items related to students' academic learning, does it help lower the number of suspensions and dropouts? The focus is put on four expenditure sectors concerning students' study in 52 public universities from 2014 to 2022. I calculate a school's (1) relative expenditure levels across all public institutions and (2) the expenditure growth rates compared to the school's previous year to better represent the conditions. Then, generalized linear regressions are conducted to determine the influence of expenditures on suspensions and dropouts. The results show that, first, schools having higher spending on sectors of student subsidy and cooperative education lead to lower suspension and dropout rates, but for schools with more expenditures allocated to continuing education sector and teaching & research sector, the rates are higher. Second, if high expenditures are allocated across the four sectors, the estimated suspension and dropout rates in bachelor program of continuing education and traditional master's program can be 2.83% to 4.23% lower, compared to schools investing low expenditures in the same four sectors. Lastly, suspensions are reduced when higher expenditure growth rates are shown in sectors of student subsidy, continuing education, and teaching & research. A higher expenditure growth rate in teaching & research sector brings the most significant effect, where a 10% growth rate reduce suspension rate by 0.72% to 1.56% in some degree systems.

14:10-14:35

88652 | *Exploring Holistic Impact: The Role of Mondriaan Aura College's 'Education for Liberation' Philosophy in Shaping the Success Pathways of Admin Scholars*  
Jacqueline Lising, Mondriaan Aura College, Philippines

This qualitative research investigates how the 'Education for Liberation' philosophy of Mondriaan Aura College has transformed admin scholars into professionals after graduation. Using photo stories for data collection, the research explores the stories of 15 alumni who, despite financial limitations, completed their higher education with the help of the institution's scholarship initiative. The photo stories show how the 'Education for Liberation' philosophy impacted the personal and professional growth of these individuals. Key themes that emerged revolve around the holistic growth of participants in character, professionalism, and resilience. The program enabled students to transcend their socioeconomic limitations, by offering educational opportunities and instilling a mindset of perseverance and ambition. Graduates reflected on how this educational journey redefined their self-perceptions, enabling them to envision and strive for futures beyond their initial expectations. The results indicate that Mondriaan Aura College's educational method effectively dismantles financial and psychological barriers, equipping students with necessary skills for success in both life and career. This research emphasizes the critical role of accessible and empowering education shaping the pathways of underprivileged students toward achievement and fulfillment.



12:55-14:10 | Room 704 (7F)

# Thursday Onsite Parallel Session 3

## Higher Education

### Session Chair: Lucie Zundans-Fraser

12:55-13:20

80451 | *Motivation for Choosing Teaching as a Career Among Japanese, Ethiopian, and Finnish Students*

Kati Keski-Mäenpää, Jyväskylä University & Kokkola University Consortium Chydenius, Finland

Megumi Honjo, Kanazawa University, Japan

Adula Bekele Hunde, Kotebe University of Education, Ethiopia

In this qualitative narrative research, we investigate the motivations behind choosing teaching as a career among Japanese, Ethiopian, and Finnish students. Understanding these motivations is significant because they are often linked to job satisfaction and commitment to the profession. The data were collected from 26 Japanese, 63 Ethiopian, and 26 Finnish teacher-students. The participants provided short narratives detailing the reasons for pursuing a career in teaching. The data underwent thematic analysis and will be followed by narrative analysis. The initial thematic analysis revealed a variety of motivations for choosing teaching as a career, differing significantly across the countries studied. In Finland, the majority of the respondents, mentioned altruistic and intrinsic reasons, such as the calling to teach, personal fulfillment, a passion for education, and the joy of helping others learn and grow. For several Japanese participants, the importance of role models, including good teachers or parents in the profession, was a significant factor in their decisions. The aspiration to work with children also featured prominently in the motivations of Japanese students. Conversely, in Ethiopia, teaching was not the first career choice for most students. Several respondents indicated a preference for other careers but chose the teaching profession, for example, due to the geographical convenience of universities in their hometowns. This research shows that teaching position is differently valued in the countries we investigated, and teacher-students' motivation reflects these values. Discussion on this topic will continue in this research.

13:20-13:45

85239 | *Merging Interests and Capacities: A Call for International Alliances in Higher Education*

Begoña Crespo, University of A Coruña, Spain

Maria Pilar Garcia-de-la-Torre, University of A Coruña, Spain

In 2020 the European Commission launched a challenging initiative to European Universities through the Erasmus + programme. This initiative consisted in developing a joint mission of education, research, innovation and service to society to create university alliances representing diverse models of systemic, structural and sustainable transnational cooperation. The overarching goal was to reinforce the quality, performance and international competitiveness of higher education across Europe. The spread of democratic values is also underscored in such transnational cooperation. Specific funding was allocated to the so-called European Universities Initiative since then in all Erasmus + calls. Under these premises, the EMERGE alliance ("Empowering the Margins of Europe through Regional and Global Engagement") was born in 2021. The common vision and mission of the nine Universities integrating the Alliance focuses on a societal and territorial dimension which drives the partners' approach in research and education and defines the way these universities operate. The University of A Coruña (UDC) became a member of the consortium in November 2022 and since then it has been engaging in several activities, meetings and proposals to set EMERGE principles at the core of UDC governance and general functioning. In this paper we will describe the application process and what it involves both for a particular university and for the general consortium by explaining the final decisions taken. We will also examine the organisation of the project around different work packages aligned with the mission and vision of the Alliance.

13:45-14:10

88703 | *Imagining the University Differently: Future of the Academic Profession at World-Class Universities*

Hei-hang Hayes Tang, The Education University of Hong Kong, Hong Kong

Imaginations are constitutive of the contemporary ideational world and shape realities of the future. However, the literature reports that most research on the academic profession focuses on contemporary changes, and little is known about how academic professionals imagine the future of the University. This presentation examines the future imaginaries of the University by the academic profession at East Asian world class universities, and how national, institutional, disciplinary and generational factors affect the formation of their future imaginaries. This study used the methodological approach of narrative research and engaged in dialogical interviewing with 52 academics at the Seoul National University, the University of Hong Kong, and the University of Tokyo. The method has generated 'thick descriptions' that narrate the lived experience of how national, institutional, disciplinary and generational factors affect the formation of their future imaginaries of the University. Four types of imaginaries were identified in relation to the shaping of their optimism and pessimism about the future, namely: Conformative endorsing, Innovative endorsing, Unimaginative critical, and Insightful visionary. Empirical analysis shows that some disciplines are more instrumental to knowledge entrepreneurialism and university strategic development. Additionally, academics who hold views endorsing the imagination of the 'entrepreneurial university' tend to be more optimistic about the future of the university. The presentation will end by discussing the impact of this research through prompting more diverse, imaginative, and visionary frameworks of the university, beyond academic entrepreneurialism, that offer the space for self-understanding, reflexivity and delivering global public good for the world in the twenty-first century.

14:10-14:35

82715 | *Higher Education Academic Middle Management Leadership in a Period of Change*

Lucie Zundans-Fraser, Charles Sturt University, Australia

The case study presented reflects the experience of university academics in middle management leadership roles - Heads of School, Associate Deans and Deputy Deans. As part of this presentation, a brief introduction to complexity theory will be provided to highlight how it was used as a strategic thinking approach, demonstrate how the institution is a complex adaptive system, and then highlight key pressure points and experiences of middle managers. Finally, how complexity theory can be used in practice as a method to underpin analysis and action will be considered. Participants have undertaken leadership roles during periods of organisational change and low staff morale. The design for this study has been positioned within a qualitative paradigm using a case study approach and utilised purposive sampling as it took place in a particular context with a specific leadership group selected for their expertise and experience of middle management leadership roles. Two key data collection methods were used: document analysis and semi-structured interviews. Institutional documents most accurately reflect the work done by middle managers week to week. A cursory document analysis was completed to determine the various activities undertaken while semi-structured interviews were completed to compare and contrast experiences. The specific phenomena of self-organisation is examined as the typical hierarchical approach taken in management and leadership is being challenged as pockets of the organisation move to distributed leadership approaches and nuanced local practice.

12:55-14:10 | Room 705 (7F)

# Thursday Onsite Parallel Session 3

Online & Blended Learning

Session Chair: Eliana Naser

12:55-13:20

84534 | *Academic and Social Adjustment to Post-Pandemic Hybrid Learning: A Phenomenological Study of Filipino First-Year Engineering Students' Experiences*

Maria Cristina Firmante, De La Salle University, Philippines

The effects of the COVID-19 pandemic caused immense changes, particularly in education. There has been a shift from mostly face-to-face to increased remote learning, and students have tried to adapt to this change. Hybrid classes are now implemented as students adjust to the new normal of the post-pandemic era. While the transition for some can be smooth and challenging for others, literature shows that adjustment comes with a wide range of experiences. Thus, this action research aims to understand better first-year engineering students' academic and social adjustment in a hybrid setting. A phenomenological approach was employed, involving thirty (30) first-year engineering students who participated in online focus group discussions. Transcripts from the focus group discussions were coded, categorized, and thematically analyzed. Observations during the interview were analyzed, and students' written essays were examined. Findings of the academic adjustments toward hybrid learning indicated that the online modality is integral to student learning, making it flexible and inclusive. Combining online and in-person classes on the same day can add to the challenge of transitioning. Moreover, the social adjustment of first-year students focused on the lack of social interaction and social support that can significantly impact their success. Implications for program development were discussed.

13:20-13:45

88357 | *Aversion to Online Classes: Impact of Technostress to Tertiary Students*

Jhoanna Andrea De Leon, National University-Manila, Philippines

Mary Joy Somao-i, National University, Philippines

Rishirl Cuario, National University, Philippines

COVID-19 has disrupted the daily routines and practices of people. One noticeable sector that was severely impacted by the pandemic was education. Institutions and educators are obliged to rapidly adapt to the changing environment, hence the shift from onsite to online education. This study aims to understand how technostress or the problem of adaptation that an individual experiences, when unable to cope with new technology becomes a contributing factor towards the aversion of tertiary students to online classes. The Technology Acceptance Model (TAM) was selected to understand the factors used to adapt technology in different areas such as education. Quantitative research method was employed to explore the effects of technostress to 253 undergraduate students from a university in the Philippines that is currently implementing HyBlend, wherein onsite and online mode of learning is utilized. An online questionnaire was distributed which contained 25 questions formulated with a 7-point Likert scale that explores what elements of online class causes technostress, effects of technostress and preferred modality of the learners. Statistical treatment such as mean, Pearson-moment correlation and regression analysis was used to interpret the data. This resulted in an alpha level of 0.05 which confirms a correlation between technostress and HyBlend learning which then suggests that technostress is present regardless of which modality students were engaged with. Elements that cause technostress such as prolonged usage of gadgets was identified in the results. The study will aid in developing recommendations to further enhance learning experience for the students by reducing technostress.

13:45-14:10

82379 | *Gen Z Preference in Blended Learning*

Eliana Naser, University of Glasgow, United Kingdom

Generation Z, the cohort born roughly between the mid-1990s and early 2010s, is experiencing a significant shift in educational paradigms due to the advent of blended learning. Blended learning is a hybrid approach that combines traditional classroom instruction with online resources and digital tools, and has become increasingly prevalent in educational institutions worldwide. This evolution is not merely a response to technological advancements but also reflects the unique needs and preferences of Gen Z students.

Aim of study: 1) To explore year 3 undergraduate nursing students' preferences on specific blended learning modes. 2) To understand the reasons for such preferences.

Method: A cross-sectional study was conducted using an 11-item survey.

Result: 58 nursing students responded to the survey. 33% of the students prefer to have interactive pre-recorded lectures. 33% of the students prefer F2F lectures. 28% of the students prefer pre-recorded lectures and only 7% of the students prefer Live Zoom sessions.

Conclusion: In conclusion, blended learning represents a transformative educational model that resonates with the preferences and needs of Generation Z. By harnessing technology, flexibility, and global connectivity, this approach equips students with the skills and mindset necessary to thrive in an increasingly interconnected and dynamic world.

12:55-14:10 | Room 707 (7F)

# Thursday Onsite Parallel Session 3

International Education

Session Chair: Dennis McCornac

12:55-13:20

84001 | *Enhancing Intercultural Competence Through Short-Term Study Abroad: A Case Study from Tennessee to Ghana*  
Queen Ogbomo, Tennessee Tech University, United States  
Cale Koester, Tennessee Tech University, United States

Short-term study abroad (STSA) trips, typically lasting two to three weeks, are gaining popularity. This presentation focuses on short-term stays abroad, defined as two to three-week programs outside the home institution's geographical location, which is the fastest-growing type of learning experience. According to Iskhakova and Bradly (2021), these programs are becoming shorter and more intense, while still enhancing the intercultural skills and personal growth of university students. Our STSA program in Ghana combined service learning with cultural studies. Students visited a local primary school daily, engaging in teaching and educational activities. They also participated in cultural center studies, learning traditional skills such as drumming, dancing, crafting, and singing. Additional activities included visits to historical sites, funeral ceremonies, and markets, providing first-hand experience of Ghanaian traditions. We will share our experience of taking students from a Tennessee university to Ghana. For this qualitative study, we employed a triangulated approach, analyzing reflective journal entries, post-trip surveys, and our observations of student interactions with locals and school children. This method allowed us to gather rich data and identify recurring themes related to intercultural competence, personal growth, and the development of global perspectives. Despite literature suggesting that longer stays offer more benefits, this short-term trip was suitable for these students, most of whom were leaving the United States for the first time. This presentation aims to demonstrate that short-term study abroad programs can effectively broaden students' perspectives, enhance their academic and personal development, and prepare them for a globalized world.

13:20-13:45

83592 | *The Role of Education in Australia's Relationship with Asia: Should it Be a Dilemma for Policymakers?*  
Dennis McCornac, Georgetown University Qatar, Qatar  
Anne Cullen, Griffith University, Australia

While education plays an increasingly important role in Australia's relationship with Asia, there does not seem to be a clear consensus among policymakers as to what just what part it plays. On one hand there is a call for a complex and nuanced relationship that requires multi-disciplinary and multi-sectorial education. Here education includes the training of Australians, and others, at Australian universities to best understand that increasingly complex relationship with its neighbours. On the other hand, education is seen mainly as an export commodity that serves primarily to promote the transactional relationship. This relationship is simplistic: Australia has commodities to sell to Asia and education is one of the foremost commodities identified by historical sales. The paper delves into the intricate relationship between education and Australia's engagement with Asia, highlighting the dichotomy within this interaction. Through this examination, it aims to unravel the persistent conflict and its implications for the decline of Asian Studies within tertiary institutions. Despite the growing demand for enhanced expertise, collaboration, and involvement, the diminishing emphasis on Asian Studies risks fostering a shallow comprehension of the Australia-Asia dynamic. Thus, the call for a whole-of-nation plan to strengthen Asia literacy, must extend beyond surface recommendations and include a more inclusive role for Australian universities in shaping a future where Australia's engagement with Asia is not only economically advantageous but culturally informed and sustainable. The trade winds beckon, and Australia's response will shape its future standing in the dynamic and flourishing economic environment of Asia.

12:55-14:10 | Room 708 (7F)

# Thursday Onsite Parallel Session 3

Foreign Languages Education & Applied Linguistics

Session Chair: Nur Najla Zainal Anuar

12:55-13:20

88526 | *Critical English Writing Skills in Thai Education: Assessing 11th Grade Proficiency and Digital Solutions*

Atichon Worasan, Khon Kaen University, Thailand

Parama Kwangmuang, Khon Kaen University, Thailand

This study assessed critical English writing skills among 11th grade Thai students, examined teaching challenges, and evaluated digital platforms' potential in skill enhancement. Using secondary analysis of national and international test data (O-NET, TOEFL iBT, IELTS) from 2019-2023 across all 77 Thai provinces, the research revealed that 80% of students possess only basic to intermediate writing skills (CEFR A1-B1), with significant disparities across regions and school types. Key teaching challenges included large class sizes, limited feedback time, and insufficient focus on higher-order thinking skills. The study identified a growing trend towards digital tool adoption, with online writing platforms and grammar checkers widely used, while AI writing assistants showed promising potential for personalized learning. This comprehensive nationwide assessment links proficiency levels to specific teaching challenges and technological solutions, highlighting the urgent need for targeted interventions to develop higher-order writing skills. The findings suggest that strategic integration of digital platforms could significantly enhance writing instruction in the Thai educational context, particularly in addressing regional disparities and providing individualized feedback. This research contributes novel insights by providing a holistic view of critical English writing skills in Thailand, with important implications for educational policy, curriculum development, teacher training programs, and the design of culturally tailored digital learning tools. Future research should focus on piloting and evaluating the effectiveness of integrated digital writing platforms in diverse Thai educational settings.

13:20-13:45

87780 | *Assessing the Impact of Second Language (L2) Writing Instruction on the Rhetorical Structure of Student Writing*

Ian Davison, Rabdan Academy, United Arab Emirates

This study assesses the effect of second language writing instruction on the rhetorical structure of L2 student writing. Since the identification of different culturally influenced rhetorical patterns of written discourse (see Kobayashi & Rinnert, 1996; Hinds, 2001), a number of researchers have questioned the supposed differences between writing produced by people from different countries (see Kubota & Al Lehner 2004; Belcher 2014); stressing that in the globalized world that we live in, it is difficult to assign one particular rhetorical pattern based upon nationality or culture. To address this question, this study assessed whether the rhetorical structure of L2 student writing changed as a result of receiving academic writing instruction over a period of 17 weeks. Findings revealed that there were significant differences between the pre and post-test writing of the learners who took part. Follow up semi-structured interviews with randomly selected students revealed that academic writing instruction can draw L2 students' attention to possible differences in the organization and presentation of writing and allows them to understand the expectations of the reader.

13:45-14:10

88433 | *The Importance of Metalinguistic Awareness in ESL Writing Classrooms*

Nur Najla Zainal Anuar, Rabdan Academy, United Arab Emirates

In L2 English education, writing proficiency is often less prioritized than speaking skills, even though it is crucial in academic and professional settings. This study, derived from a larger study by Anuar (2020), investigates the complex nature of L2 writing in a typical second language English classroom. It examines how metalinguistic awareness influences how learners shape their writing and their views and attitudes towards writing. The study employed two types of writing conversations: 1) tasks designed to gauge learners' metalinguistic knowledge of writing; 2) open-ended questions to explore their views and beliefs about good quality writing. Results showed that while learners could identify some grammatical features, it was evident that they did not apply their linguistic knowledge in their writing. Although they could produce well-written essays, they believed that good writing is primarily about using 'perfect grammar', with little emphasis on applying grammatical knowledge to enhance communication. This means that when writing, learners' grammar knowledge often exists in isolation. Additionally, the writing conversations revealed no evidence of discussions about linguistic choices in achieving rhetorical goals. While many prior studies suggest that explicit grammar knowledge improves writing accuracy, this study proposes that L2 writing instruction should also involve using this knowledge to encourage discussions on shaping writing beyond mere technical accuracy.



## Notes

[illegible]

14:50-16:30 | Room 601 (6F)

# Thursday Onsite Parallel Session 4

## Professional Development

### Session Chair: Deborah Buscall

**14:50-15:15**

83678 | *Exploring Teachers' Self-Efficacy in Implementing SEL Programs: A Study on Personal Experiences and School Support*  
Ruth Ignacio, Ateneo de Manila University, Philippines

This qualitative study explores teachers' lived experiences and perceptions of their competence in implementing social and emotional learning (SEL) programs, and how these shape their self-efficacy beliefs and experiences. Using an Interpretative Phenomenological Analysis (IPA) approach, in-depth interviews were conducted with two primary school teachers from different school settings in the Philippines. The study is grounded in Bandura's (1977) self-efficacy theory and Tschannen-Moran and Hoy's (2001) model of teacher self-efficacy. The findings reveal that teachers' self-perceptions of competence, shaped by personal experiences, school environment, and social-emotional competencies, influence their self-efficacy beliefs through mastery experiences, vicarious experiences, verbal persuasion, and physiological/emotional states. Positive self-perceptions and high self-efficacy lead to more effective SEL implementation, while low confidence and lack of support hinder it. Contextual factors like school support, resources, and training opportunities also shape teachers' self-efficacy and approach to SEL. The study underscores the need to address both individual and systemic factors to enhance teacher self-efficacy and ensure effective SEL delivery. By understanding the sources of self-efficacy and the context-specific nature of teacher self-efficacy, this study informs the development of targeted interventions to enhance teacher confidence and effectiveness in SEL implementation. The findings highlight the importance of providing teachers with context-specific support, opportunities for mastery experiences, exposure to successful models, supportive feedback, and strategies to manage stress and emotions. Ultimately, empowering teachers is crucial for the successful integration of SEL in schools and the holistic development of students.

**15:15-15:40**

86869 | *Comparative Study of Real-Time Classroom Observation Systems: Self-Selected vs Researcher-Set Foci on Teacher Efficacy Using Digital Observation Tools*  
Yiju Lin, National Tsing Hua University, Taiwan

This study examines the impact of self-selected versus researcher-set observation foci on teacher efficacy, using digital tools developed by Professor Zhang Minjie at National Taiwan Normal University. In Taiwan, each primary and secondary school teacher must conduct at least one public lesson annually. A professional observation team was established to facilitate this. The study used a two-phase mixed-methods approach. In the first phase, ten lessons were observed using researcher-set foci, followed by in-depth interviews. In the second phase, a collaborative lesson study allowed teachers to set their own foci, followed by another ten observed lessons and interviews. Interview data were analyzed both qualitatively and quantitatively, with themes coded and quantified by frequency. Statistical analyses, such as chi-square tests, assessed differences in teacher efficacy. This study highlights the importance of tailoring observation tools to subject needs, enhancing teacher efficacy. The study found that teachers using self-selected observation foci showed significantly higher teaching efficacy compared to those using researcher-set foci. Statistical analysis (chi-square test,  $p < 0.05$ ) supported this, with teachers reporting greater relevance and reflection when selecting their own foci. Researcher-set foci, while structured, were sometimes less adaptable to immediate classroom needs. Digital tools enhanced both approaches, providing more accurate observations and feedback. Overall, self-selected foci proved more effective in meeting teachers' instructional goals.

**15:40-16:05**

85206 | *Exploring the Classroom Mindset of High School Mathematics Teachers: Basis for a Growth-mindset Focused Instructional Design Framework*  
Raymond Canlapan, Miriam College, Philippines

This dissertation addressed the gap in instructional design frameworks aimed at fostering a growth mindset in high school mathematics. Using an explanatory sequential research design, the study investigated how current mathematics education in the Philippines promotes a growth mindset among high school students and how the taught curriculum can be redesigned to enhance this objective. The research began with a descriptive survey of 200 high school mathematics teachers to assess their classroom mindset. Key findings suggest that teachers have a mixed mindset leaning towards fixed, and they struggle to implement growth mindset strategies. Follow-up interviews with 20 selected teachers delved into their attitudes, beliefs, and practices, revealing significant challenges, such as a congested curriculum, students' poor foundational skills, and inadequate teacher training. The study also evaluated existing teaching frameworks to establish a comparative baseline. The synthesis of survey data and interview themes informed the development of a new instructional design framework tailored to promote a growth mindset. This framework addresses practical challenges and incorporates effective growth mindset teaching principles. The proposed framework aims to support teachers in creating a growth-oriented learning environment, enhancing educational outcomes in mathematics. This dissertation provides a comprehensive guide for educators to structure their teaching practices to better foster a growth mindset among students.

**16:05-16:30**

86467 | *The Drivers, Prevalence and Effect of Collective Teacher Efficacy on Student Achievement in Secondary Schools*  
Deborah Buscall, University of Newcastle, Australia

There has been considerable research into what happens within schools to promote and support student learning however, there has been less research into how collective teacher efficacy affects student achievement in subject departments in secondary schools. This study explores the drivers, prevalence and impact of collective teacher efficacy on learning gain in subjects in the NSW external examination, the Higher School Certificate. In this research a case study methodology is adopted and includes both quantitative and qualitative data and involves both data from teachers and students. The findings were, that in subjects where there was high learning gain, there was a high prevalence of collective teacher efficacy. It was also found that the drivers of collective teacher efficacy were positive classroom environments, positive teacher relationships, high learning expectations, explicit teaching, ongoing evaluation of teaching practice and assessment, supportive leadership at the whole school and subject department level, consistent teacher practice. In the school that had the most subjects with high learning gain there was a consistent school-wide pedagogy that was supported by both teachers and students as well as consistent whole school professional learning across all subject areas. This study is unique because it changes the narrative from just a focus on student achievement to student learning gain which reflects the impact not only on the teaching to the effect of internal motivation by both students and teachers.

**14:50-16:30 | Room 603 (6F)**

# Thursday Onsite Parallel Session 4

**Design, Implementation & Assessment of Innovative Technologies in Education**

**Session Chair: Maria Grazia De Angelis**

**14:50-15:15**

84146 | *AI Literacy in Higher Education: The Role of Academic Libraries*  
Lili Luo, San Jose State University, United States

AI literacy, defined as the ability to recognize, understand, use, and critically evaluate artificial intelligence (AI) technologies and their impacts, is crucial for students to thrive in the AI-driven job market. This literacy equips students with critical thinking skills to grasp AI's limitations, ethical concerns, and potential biases, thus enabling them to benefit from AI while mitigating associated risks. Academic libraries are positioned to enhance AI literacy among college students by providing targeted resources and educational support. In the United States, libraries have developed AI-focused LibGuides—user-friendly online guides—to demystify AI concepts, ethical implications, and applications. This study aims to analyze the role of academic libraries in supporting AI literacy education through a content analysis of AI literacy LibGuides from US libraries. Specifically, we evaluate the content, structure, and usability of these LibGuides to identify effective practices. By assessing these guides, we intend to uncover best practices for crafting AI literacy resources and integrating them into academic curricula. The study is currently ongoing. A purposive sample of AI literacy LibGuides have been selected from the Association of Research Libraries. A codebook is being developed inductively. Findings from this analysis could lead to the development of standardized AI literacy modules tailored to various disciplines, enhancing collaboration between librarians and faculty. Additionally, the study seeks to identify strategies for promoting AI literacy resources and fostering faculty engagement in professional development. Ultimately, the research aims to support a cohesive approach to embedding AI literacy across the academic curriculum.

**15:15-15:40**

88443 | *Cultivating AI Literacy in Youth: A Comprehensive Framework for Learning Ecosystems*  
Paritchaya Sarakan, Khon Kaen University, Thailand  
Parama Kwangmuang, Khon Kaen University, Thailand  
Anucha Somabut, Khon Kaen University, Thailand  
Lan Thi Nguyen, Khon Kaen University, Thailand

Artificial Intelligence (AI) literacy has emerged as a critical competency for the youth within the rapidly evolving digital environment. However, there is a lack of comprehensive frameworks to guide the development of AI literacy among young learners. This study addresses this gap by developing a conceptual framework for creating learning ecosystems that support AI literacy among youth. The aims of the research were to: (1) conduct a literature review on concepts and theories for fostering AI literacy, (2) develop a theoretical conceptual framework, (3) analyze the role of various components within learning ecosystems, and (4) evaluate the framework through expert review. A qualitative research design was employed, including a systematic literature review of studies from 2013-2023 and an expert evaluation involving 10 professionals in AI education, curriculum design, and digital literacy. The study identified six key thematic areas crucial for AI literacy: cognitive development, technological proficiency, ethical understanding, social implications, critical thinking, and computational thinking. The resulting framework integrates these themes into four main components: 1) foundation of AI literacy, 2) ethical and critical dimensions, 3) social and collaborative learning, and 4) technical proficiency. Expert evaluation confirmed the framework's theoretical validity, practical relevance, and potential impact. This study contributes a novel, comprehensive approach to AI literacy education, emphasizing the interplay between individual learning processes and broader social, technological, and ethical contexts. The framework's adaptability across various educational settings offers a significant advancement in preparing youth for an AI-driven future.

**15:40-16:05**

85561 | *"Students Have Been Cheating with or Without AI": Doing What Matters Most – Designing Authentic, Critical and Meaningful Learning with AIED*  
HG Retno Harsanti, National Taiwan Normal University, Taiwan

A global survey conducted by UNESCO in 2023 across 450 schools and universities worldwide has disclosed a notable increase in the adoption of AI across various nations, yet only 10% among them have established regulatory frameworks governing its implementation. Concerns have been raised about the potential negative consequences of AI in education (AIED), including fears that it may trigger unethical behavior in academics, blunt critical and creative thinking processes, lead to human loss in decision-making, and promote laziness. Through a systematic literature review of the Scopus database spanning 2018-2020 and 2022-2024, this study juxtaposes empirical instances of breaches in academic integrity by students. These insights serve as the foundation for advocating the development of a learning design tailored for K-12 educational settings in the AIED era. This design involves (1) authentic learning through real-world problems and data-driven learning, (2) critical learning through open-ended critical questions, reasoning, and metacognitive processes, and (3) meaningful assessment such as performance-based, output-based, and action-driven assessment. The implementation integrates technology, including AIED, and employs collaborative and communicative approaches. By adhering to this design, educators aim to enhance student engagement, mitigate academic misconduct, and maximize the benefits of AIED in enriching the learning experience.

**16:05-16:30**

83829 | *Beyond the Classroom: Experiments in Teaching and Learning Languages in a Post-Pandemic World*  
Maria Grazia De Angelis, Saint Mary's College of California, United States

In the age of AI, plagiarism, and post-pandemic stress, language instructors must find new ways to engage students using more flexible and inclusive teaching methods. As learning practices evolve, new technologies and pedagogies are critical to enable personalized and engaging learning experiences that bring students together in ways that traditional lectures, translations, and tests cannot. Faculty creativity is vital to foster a student-centric learning environment. This presentation explores teaching methodology experiments involving three groups of undergraduate American students studying a foreign language in the two years following the pandemic and shares pedagogical practices that were sometimes successful and sometimes not successful in a qualitative study. It analyzes assessments of student learning as a measure of the effectiveness of learning activities including language immersion, intercultural projects, community engagement activities, and collaborative work and also shares the results of a series of surveys completed by students over this period as a measure of their engagement and experience. Based on these results, conclusions are drawn about the types of activities that are most engaging and relevant for undergraduate language learners in 2024. The presentation provides specific examples of student work, sample syllabi, assessments and teaching tips and recommendations, with pros and cons.

14:50-16:30 | Room 604 (6F)

# Thursday Onsite Parallel Session 4

Design, Implementation & Assessment of Innovative Technologies in Education (Workshops)

Session Chair: Tatag Yuli Eko Siswono

14:50-15:15

88172 | *Factors Influencing the Successful Implementation of a Constructivist-Based Digital Learning Platform Model for Enhancing Mathematical Executive Problem-Solving a Mixed-Methods Study*

Supaluk Chaiarwut, Khon Kaen University, Thailand

Parama Kwangmuang, Khon Kaen University, Thailand

Sanit Srikoorn, Khon Kaen University, Thailand

The integration of digital learning platforms in mathematics education presents both opportunities and challenges. This study investigates the factors influencing the successful implementation of a constructivist-based digital learning platform model designed to enhance mathematical executive problem-solving skills among primary school students. The research objectives were to identify key success factors, examine their relationships with learning outcomes, and explore stakeholders' perspectives on the model's effectiveness. A mixed-methods approach was used, involving purposive sampling of 5 designers, 5 developers, and 5 teachers, and stratified random sampling of 210 sixth-grade students from three schools with diverse demographics. Inclusion criteria for students included consistent attendance and prior experience with digital platforms. Data collection methods included surveys, interviews, and classroom observations. Quantitative data were analyzed using descriptive statistics and multiple regression, while qualitative data underwent thematic analysis. The findings reveal that the integration of constructivist theory ( $\beta = 0.31, p < .001$ ), quality of digital learning platforms ( $\beta = 0.28, p < .001$ ), and teachers' understanding of the platform ( $\beta = 0.25, p < .001$ ) were the most significant factors contributing to the model's success. Student engagement and interest ( $\beta = 0.22, p < .001$ ) also played a crucial role. The study uncovered complex interactions between factors, with teachers' understanding indirectly influencing success through increased student interest ( $r = 0.62, p < .001$ ). This research provides valuable insights for educators and policymakers seeking to implement effective digital learning platforms in mathematics education, highlighting the importance of theoretical grounding.

15:15-15:40

85220 | *Integrating Traditional Mathematics Instructional Materials with AI Tools*

Norli Anida Abdullah, Universiti Malaya, Malaysia

Amirul Mohamad Khairi Mannan, Universiti Malaya, Malaysia

Raiha Shazween Redzuan, Universiti Malaya, Malaysia

Norhaslina Kamarulzaman, Universiti Malaya, Malaysia

Hisham Safuan Bin Mohamad Shukri, Universiti Malaya, Malaysia

Mohd Razip Bajuri, Universiti Malaya, Malaysia

The study proposes the integration of AI tools with traditional tutorial questions to enhance students' understanding of mathematical concepts and procedures. Traditional tutorial questions on the topics of limits and differentiation were supplemented with guided use of technology tools such as the Graphing Calculator, Generative AI, Video Animation, and Word Problem Calculator. These questions, which encompassed conceptual, procedural, and application-based queries, were designed as instructional materials to encourage independent exploration and promote the ethical use of tools among students. Twenty-two students were exposed to the traditional tutorial questions, followed by the proposed AI-integrated tutorial questions, and subsequently provided feedback. Data obtained from these learning activities were analyzed to measure students' motivation, understanding, and problem-solving skills in mathematics. The results indicated that 82% of the students agreed that the AI-integrated tutorial questions enhanced their motivation to learn mathematics. Furthermore, 86% of them demonstrated an increased understanding of the concept, and 86% of the students reported that the AI-integrated tutorial questions aided their problem-solving skills in mathematics. The proposed work can benefit mathematics educators by enhancing student outcomes and fostering students to become independent learners and confident individuals.

15:40-16:05

88515 | *Integrating Innovative Technologies in Mechanical Engineering Education: A Case Study of an Arduino-Powered Robotic Arm for Quality Assurance in Automotive Manufacturing*

Suzilawati Muhamud-Kayat, Universiti Teknologi MARA, Malaysia

Mohd Hazri Mohd Rusli, Universiti Teknologi MARA, Malaysia

The integration of innovative technologies in mechanical engineering education is crucial for equipping students with the skills and knowledge required in modern industrial environments. This research presents the design, implementation, and assessment of an educational framework that incorporates Computer-Aided Design (CAD) and Simulation Software, Additive Manufacturing (3D Printing), Robotics and Automation, and Mechatronics and Embedded Systems, with a specific focus on an Arduino-powered robotic arm for automated precision inspection in automotive manufacturing. The problem addressed is the existing gap in hands-on educational experiences that connect theoretical knowledge with practical applications, particularly in the context of quality assurance in manufacturing. The study explores the development of a robotic arm system designed to inspect Checking Fixture Jigs (CF-Jigs) used in automotive production, using Arduino as a cost-effective, open-source platform. This system is integrated into the curriculum to provide students with real-world experience in design, prototyping, and automation. The objectives include enhancing students' understanding of CAD modeling, 3D printing, and robotics, while simultaneously addressing the industry's need for efficient, accurate quality assurance tools. The methodology involves student-led projects where they design and implement the robotic arm, simulate its operations using CAD software, and produce physical prototypes through 3D printing. The system's performance is then evaluated in a simulated manufacturing environment. Findings indicate that this approach not only improves students' technical skills but also prepares them for challenges in modern manufacturing. Future work will focus on refining the educational framework, incorporating advanced technologies like machine learning, and expanding its application to broader engineering disciplines.

16:05-16:30

87053 | *Exploring Prospective Mathematics Teachers' Skills in Designing Innovative Technology-Based Mathematics Teaching*

Tatag Yuli Eko Siswono, Universitas Negeri Surabaya, Indonesia

Agung Lukito, Universitas Negeri Surabaya, Indonesia

Dayat Hidayat, Universitas Negeri Surabaya, Indonesia

Hutkemri Zulfadi, Universitas Negeri Surabaya, Indonesia

Sugi Hartono, Universitas Negeri Surabaya, Indonesia

Today's mathematics learning and teaching cannot be separated from the use of technology. Using technology for mathematics educators is one form of innovation. However, experts mention other innovation indicators in mathematics learning and teaching, including student-centered learning, using real contexts, student activeness in building concepts, focusing on problem-solving, student interaction, and encouraging student motivation or attitudes. This study aims to describe prospective mathematics teachers' skills in designing innovative technology-based mathematics learning. This descriptive-exploratory study used quantitative and qualitative approaches. Data were collected from 20 prospective mathematics teachers' students of the Mathematics Education undergraduate program. Quantitative data were collected by questionnaires about the importance and some aspects of technology in mathematics learning. Qualitative data were obtained from lesson plan tasks that were analyzed with indicators of innovative mathematics learning and semi-structured interviews of two prospective teacher students. The Qualitative analysis uses interactive methods, consisting of data condensation, data display, and verification of findings. Research results pointed out that 93.8% of students stated that applying technology in mathematics learning is a necessity, although 68.8% of students still use technology to match the results of assignments after being completed manually. There are still 25% of students who think that if done directly using technology, students have difficulty understanding the concept. Their lesson plan tasks show variations in the use of technology from geogebra, scratch, YouTube, and math applications on the internet. Students already have skills in designing learning plans, especially using technology, student-centered learning, learning interactions, motivating students, and building character.



**14:50-16:30 | Room 605 (6F)**

# **Thursday Onsite Parallel Session 4**

**Nurturing Creativity & Innovation: New Innovative & Radical Education**

**Session Chair: Henry Tsang**

**14:50-15:15**

87631 | *Do You Re(meme)ber: Reconstructing Memes as a Summary for Recall and Comprehension in Mapua University*

Marian Ingrid Sauco, Mapua University, Philippines

Marvin De Leon, Mapua University, Philippines

The education crisis in the Philippines is a problem that millions of Filipinos face. Despite being a country where students spend the most hours in school, the Philippines is less productive than other countries (Philippine Business for Education, 2023). With the prevailing challenges in the Philippine education system, the study seeks to improve quality education by exploring the potential use of memes in education. This study explored memes to improve recall and comprehension in Chemistry through a mixed-method approach. The study used the criteria in characterizing Internet memes by Molina (2020) to deconstruct the learning material and memes for this study. Through deconstruction, the study was able to identify three ways to create memes for education: (1) panel layout, (2) conditional layout, and (3) map layout. The study also used a content analysis for the responses and a survey to measure the effectiveness of memes. The statistical results showed that memes are an effective means to recall, comprehend, and summarize a lesson among students at Mapua University. The memes created for the study are most effective in comprehension, while some students think that memes are an effective way to recall and provide an educational summary. Future scholars may consider changing the study's methodology to explore other geographical contexts and apply the study in other disciplines to have a more cohesive understanding of memes to recall in teaching and education.

**15:15-15:40**

86435 | *Discovering the Inner Compass: How Education Guides Potential Founders in Identifying and Integrating Values and Principles into Their Ventures*

David Nawrath, Technical University of Munich, Germany

Jack Fuchs, Stanford University, United States

Founders' values and principles play a crucial role in shaping their company's culture. However, finding and integrating these values into both personal and professional life can be challenging. The university course "Values and Principles Discovery" aims to help students find their own values and principles. This is crucial as it helps future entrepreneurs integrate their values into their ventures. This study investigates how the course helps founders find their values and principles and learn how to employ them. This qualitative study draws on semi-structured interviews of 51 students who found a company after graduation. The study presents a model illustrating how students discover their values and principles during the course and integrate and continuously re-evaluate their values and principles in their startups. The findings reveal that real-world case studies, guest lecturers, and a group assignment on defining company values contribute to finding their own values and principles and gaining the skill to define company values. These teaching methods help students identify their values, which then guide decision-making, conflict resolution, and finding value-aligned co-founders. Together, they transfer their personal values into company values, initiating the organizational value creation cycle in which they act, lead, and hire new employees who are aligned with their values. Our findings highlight the impact of education on the students' formation, integration and re-evaluation of values and principles as a dynamic and ongoing process going beyond course completion. Moreover, this study has implications for character and entrepreneurship education and shows how young ventures create organizational culture.

**15:40-16:05**

88691 | *New Models of Architectural Education, Radical Inclusion and Alternative Paths to Licensure*

Henry Tsang, Athabasca University, Canada

Globally, the architectural profession lacks equity, diversity, and inclusion, and university architectural education is one of the primary reasons. Architectural educational programs (Bachelor of Architecture, Bachelor of Science in Architecture, Master of Architecture) are rooted in a face-to-face apprentice-based model complementing theory and practice. With highly competitive admission rates and tuition fees higher than most other programs, architectural education is inaccessible to most. Moreover, universities offering architecture programs typically cluster around large metropolitan areas, leaving rural areas unserved. Universities struggle to create welcoming environments to attract and retain talent from marginalized and underrepresented groups. In recent years, several online university programs (Academy of Art, Boston Architectural College, Lawrence Technological University, Southern Illinois University) have emerged in North America to help address these issues and have successfully been accredited by the National Architectural Accrediting Board in the US as alternative paths to becoming licensed architects. In Canada, a distance education model was also developed by the Royal Architectural Institute of Canada as a work-study model. For many architectural educators, architectural education as a study of the built environment needs to retain a physical in-person component which an online or distance education model could not provide. The study examines new and innovative architectural education models from universities globally that address radical inclusion and alternative paths to licensure to become architects. The methodology includes a comparative study of the program curriculum and delivery models and interviews and surveys with educators from representative institutions.

14:50-16:30 | Room 607 (6F)

# Thursday Onsite Parallel Session 4

## Special Topics in Educational Practice

### Session Chair: Kevin Yung

14:50-15:15

88539 | *The Paradox of Constructivist Education: On the Way to Deconstructing the Authority of Knowledge*

Jihyun Bae, Pusan National University, South Korea

Soyoung Lee, Pusan National University, South Korea

Contemporary Korean education, while adopting constructivist pedagogy in response to critiques of knowledge-centered education, remains anchored in a system that reinforces the authority of knowledge. This reflects Jacques Derrida's concept of autoimmunity, where a system paradoxically undermines itself while trying to protect its core values. Autoimmunity shows how constructivism, despite efforts to move beyond knowledge-centered education, ends up reinforcing the authority of knowledge instead of dismantling it. However, Derrida argues that autoimmunity can also encourage critical reflection and allow systems to evolve beyond their limitations. Building on this idea, this study applies Derrida's concept of autoimmunity to education, investigating how constructivist pedagogy, which aims to decentralize the authority of knowledge, paradoxically reinforces it. Through a philosophical analysis, this research examines assessment systems in Korea and other Asian educational contexts. Although constructivism promotes the idea that students construct knowledge independently, assessments remain focused on measuring how well students have mastered predefined knowledge. This implicitly reinforces the idea that correct answers provided by authorities are paramount, maintaining the authority of knowledge. As a result, these practices misalign with the goals of constructivism, emphasizing knowledge acquisition over fostering independent thought and meaning-making. By diagnosing this phenomenon through Derrida's principle of autoimmunity, this study explores the original meaning of constructivism and critically reassesses the validity of current assessment systems. Through this reflection, the study proposes new directions for educational practices more aligned with the fundamental goals of constructivist pedagogy, fostering independent thought and meaningful learning experiences.

15:15-15:40

87099 | *The Impact of the School-Initiated "Adopt and Save Indigenous People (IP) Learners" Project on the Learners' Lives*

Jacqueline Joy Lising, Mondriaan Aura College, Philippines

This qualitative research explores the impact of "Adopt and Save Indigenous People (IP) Learners Project" to the lives of the participants. The project, led by the school-head and faculty, began in 2021 as financial support to address the educational needs of IP learners who live three hours away from school. Through the indigenous research method "pakikipagkwentuhan" (informal conversations), the researcher gathered information about the project's impact on the learners' lives. The result yielded focus in three life facets: academic, social, and future orientation. In academic facet, two IP learners were able to finish their senior high school through the project; one of them graduated with honors. A bachelor's degree in Criminology is now being pursued by both learners and four more IP learners are enrolled in Grade 12. The project improved the learners' social skills and cultural pride by boosting their self-confidence and enabling them to actively participate in class discussions and school events. In terms of their future orientation, every respondent now firmly intends to go to college and earn a degree, which is a significant shift from the custom in their village, where the majority of young people choose to start families or work as farmers and vegetable vendors rather than pursue higher education. The research highlights the need to establish networks with external stakeholders to support the growing numbers of IP learners. Overall, the project has contributed to the betterment of the learners' quality of life, marking a substantial positive impact on their future prospects.

15:40-16:05

84745 | *Role-Based Learning in Case Studies*

Shirley Huang, University of New South Wales, Australia

Role play has been established as a powerful educational tool that provides hands-on experience across various educational levels and subjects. It plays a crucial role in risk management education. Risk management is a critical function within any organizations. The process includes identification, assessment, and mitigation of risks that could affect an organization's operations, finances, reputation, and overall success. By analysing past event case studies, students not only learn lessons from historical experiences but also familiarize real-world applications of theoretical concepts, thus enhancing their future risk management strategies. Engaging students in role play is particularly impactful. By adopting different roles, students gain a deeper understanding of the complexity of events and organizations, the practical application of risk management concepts, and the management decision-making process from multiple perspectives. This role play approach has been successfully integrated into case study project assessments in risk management courses. Positive feedback from students has demonstrated its effectiveness in enhancing active learning environment and developing students' critical thinking skills. The objective of this pedagogical approach is to closely align with the learning outcomes of the course. This presentation will share our methodologies for selecting appropriate risk management case studies and constructing a role play framework that effectively supports the educational goals.

16:05-16:30

87739 | *Investment in Shadow Education: An Underprivileged Student's Narrative Experience in Private Tutoring*

Kevin Yung, The Education University of Hong Kong, Hong Kong

This year-long longitudinal narrative inquiry examines how an underprivileged secondary school student in Hong Kong used shadow education (i.e., private tutoring) to address social and educational inequalities. Utilising Norton's concept of investment, the study explores the intricate relationship between learner identities and a high-stakes assessment environment. Data collection methods included reflective writing, six rounds of interviews, and classroom observations. The findings demonstrate how the student strategically leveraged tutoring to achieve academic success, broaden her social network, and enhance her self-esteem. This case highlights the dual role of private tutoring: it offers benefits in tackling educational disparities but remains largely inaccessible to many disadvantaged students. The research underscores the necessity for policy interventions that can bridge this accessibility gap. Recommendations include implementing government subsidies to make tutoring more affordable and developing fee-free supplementary educational services to support underprivileged students. These measures could help level the educational playing field, providing all students with the opportunity to benefit from additional academic support. Furthermore, the study suggests the need for continued exploration into the tutoring experiences of disadvantaged students, particularly in affluent societies, to better understand the broader implications and potential solutions for educational inequality. By highlighting these experiences, the research aims to inform educators, policymakers, and stakeholders on effective strategies to promote equitable access to educational resources and opportunities.

**14:50-16:30 | Room 608 (6F)**

# Thursday Onsite Parallel Session 4

## Professional Training, Development & Concerns in Education

### Session Chair: Patricia Chew

**14:50-15:15**

87332 | *Tolerance for Uncertainty as a Mediation Role in the Relationship Between Professional Identity and Career Choice Among Early Childhood Student*

Ismath Ramzy, University of Malaya, Malaysia

Jie Pan, University of Malaya, Malaysia

Chinese early childhood education (ECE) students face significant employment challenges, including unstable market demand, intense competition, limited career options, and an uncertain policy environment. The low appeal of the teaching profession has led many student teachers to reconsider pursuing a teaching career, though the stability of early childhood teachers is crucial for education quality and equity. Professional identity is key in shaping student teachers' confidence and familiarity with teaching, influencing their career decisions. However, its impact may be diminished by external and personal factors. Despite the importance of this issue, research on the psychological factors influencing student teachers' career decisions is lacking. This study, grounded in the Chaos Theory of Careers, explores how tolerance for uncertainty mediates the relationship between professional identity and the willingness to become an ECE teacher. Career development is complex and adaptive, shaped by both external and internal factors. Tolerance for uncertainty enhances adaptability and confidence in career decisions. Survey data from 463 ECE students indicate that tolerance for uncertainty significantly influences whether student teachers with a certain level of professional identity choose to pursue a career in early childhood education. Those with a higher tolerance for uncertainty are more likely to express a strong willingness to teach, especially if they possess a strong professional identity. These findings provide new insights into the relationship between professional identity and career decisions, expanding the theoretical understanding of career development. This research suggests that enhancing tolerance for uncertainty in teacher education could help produce more stable education professionals.

**15:15-15:40**

82370 | *Empower, Connect, Grow: Strengthening Teacher Identity with Self-Determination Theory*

Ethan Wong, Nanyang Technological University, Singapore

This paper explores teacher identity development through the lens of Self-Determination Theory (SDT), highlighting the essential role of fulfilling the basic psychological needs—autonomy, competence, and relatedness—in shaping and energising educators' identity development. Within the SDT framework, fulfilling these needs is not merely beneficial but essential for optimal functioning, growth, and well-being. This theoretical lens provides a unique perspective on how autonomous motivation derived from needs satisfaction can significantly impact teacher identity development across their professional lifespan. Identity development is foundational for pre-service teachers. It is influenced by autonomy in internalising teaching values, competence built through training and experience, and relatedness fostered by supportive community relationships. These elements not only aid in forming a positive teacher identity but also boost commitment to the profession. Experienced teachers also benefit from ongoing needs satisfaction for continuous identity development. Autonomy support helps educators maintain a reflective and adaptive practice, allowing them to stay true to their teaching philosophies. Competence fostered through continuous professional development and the accumulation of teaching successes reinforces their self-efficacy and refines their pedagogical skills. Relatedness, through active participation in educational communities and mentorship roles, reinforces their belonging and contribution to the teaching profession, reigniting their passion and dedication. The reciprocal relationship between the satisfaction of needs and teacher identity development indicates that a strong professional identity encourages teachers to pursue experiences and environments that fulfil their needs. This underscores the significance of educational contexts designed to meet these psychological needs for teachers at all stages of their careers.

**15:40-16:05**

81346 | *Facilitator's Perception of Module Effectiveness: A Qualitative Review in Ministry of Religious Affairs Teacher CPD Training*

Muliyani Olvah, Malang State University, Indonesia

Shirly Rizki Kusumaningrum, Malang State University, Indonesia

Radeni Sukma Indra Dewi, Malang State University, Indonesia

Muhammad Alfian, Malang State University, Indonesia

The MEQR Component 3 Project is an activity to strengthen and develop the capacity of supervisors, madrasah heads, teachers, librarians, and laboratory workers through tiered training. Modules are an integral part of this training activity. This qualitative research aims to obtain information on the effectiveness of training modules in CPD Teacher activities. This study involved 6 facilitators who were determined using a simple random sampling technique. Data was taken using interview techniques and document analysis and then analyzed descriptively. The results showed that in the aspect of module readability, facilitators have good perception. Most of the interview results showed that the modules used had a language that was easy to understand. From the aspect of module content, most facilitators argue that the content of the CPD Teacher module is still not optimal and requires improvement in the form of curriculum adjustments and clarifying learning stages. Furthermore, in terms of the utilization of modules by participants, facilitators have the opinion that their utilization is still not optimal because most participants still like to read information and materials from PPT compared to modules. Following up on the results of this study, it is recommended that the module revision be made in the form of curriculum adjustments and module design, and further research is needed related to participants' interest in reading the CPD Teacher module.

**16:05-16:30**

88112 | *Professionalising the Student Care Sector in Singapore*

Patricia Chew, Singapore University of Social Sciences, Singapore

Chong Guan, Singapore University of Social Sciences, Singapore

Research has shown that student care centre (SCC) programmes can lead to positive outcomes like improved academics and social skills, but there is a dearth of research in the on SCCs in the Asian context. Through in-depth interviews, focus group discussions and surveys, the views of parents, SCC owners, supervisors, teachers and ex-teachers were sought to understand the motivations, expectations, as well as challenges faced by various stakeholders. Parents enrolled their child in SCCs mainly because there were no alternative care arrangements. Apart from basic needs like meals and rest, parents expected teachers to ensure the completion of homework correctly. There is a misalignment of parents' expectations and what SCC teachers can deliver. In school-based centres, the teachers are supposed to only conduct programmes that align with the school's values, but are not allowed to teach academic content, because this is under the purview of the schoolteachers. In community-based centres, teachers not only teach the children, but also guide and nurture their socio-emotional development. The SCC sector however, faces challenges in manpower retention and financial viability due to squeezed margins and lower fees charged. Lower wages and a lack of career progression opportunities result in high turnover of staff with higher educational qualifications. To overcome the challenges, policymakers need to establish a framework to professionalise the industry, with clear training and development pathways and career progression to better equip the teachers to execute their roles effectively as they support working parents in the holistic development of the child.

14:50-16:30 | Room 703 (7F)

# Thursday Onsite Parallel Session 4

Education, Sustainability & Society: Social Justice, Development & Political Movements

Session Chair: Nor Farizal Mohammed

14:50-15:15

83715 | *Exploring the Effect of Armed Conflict on Children's Education in Nigeria*  
Ryuto Minami, Kobe University, Japan

The conflict profoundly affects citizens' lives, depriving children worldwide of their right to education. Nigeria stands out as one of the most significant African countries currently facing increased conflict, beginning with terrorist activities in the northeast. Although these studies commonly use the number of events or fatalities at the district or province level as conflict indicators, they have not quantitatively assessed how specific conflict events, including their targets and details, influence children's access to education. Moreover, the impact of conflict extends beyond the immediate district, affecting educational access in other regions. Despite this, scant research has focused on the ripple effect of conflict on primary school children's educational access. This study, therefore, aims to investigate the impact of individual conflict events on educational access and the broader spillover effect in Nigeria. The study employs quantitative analysis using data from the Nigerian General Panel Survey, covering waves 1 to 4 (2009-2019). Our findings indicate that the incidence of school attacks and student abductions, especially those occurring within 10 kilometers of the village, has detrimentally impacted students' access to primary education. Our findings indicate that the incidence of school attacks and student abductions, especially those occurring within 10 kilometers of the village, has detrimentally impacted students' access to primary education. Furthermore, these negative effects on children's access to education extend to neighboring districts, with a more pronounced impact on female students. These insights offer a new dimension to existing research on policies aimed at ensuring educational access in conflict-affected areas in Nigeria.

15:15-15:40

85564 | *Learning to Labour?: Reconsider Schooling and Capitalism in the 21st Century from a Post-Marxist Perspective*  
Autthapon Prapasanol, National Taiwan Normal University, Taiwan

In this article, I aim to present a theoretical framework for understanding the relationship between schooling and capitalism in the present time from a Post-Marxist perspective. Drawing on Paul Willis's classical Marxist ethnographic study "Learning to Labour: How Working Class Kids Get Working Class Jobs", this study explores how working-class students ultimately reconcile their position as workers, despite their initial resistance to schooling and awareness of capitalist ideology. Willis's work focuses on understanding students' experiences as active agents on a cultural-process level. However, changes in the contemporary capitalist world necessitate a fresh analysis. Therefore, this article engages in a debate on key concepts and methods of analysis from the theories of Hardt, Negri, and Žižek. The first part proposes methods to understand schooling within the new landscape of production modes and time in capitalism, following the idea of the "social factory". This is followed by a discussion on the concepts of penetration, half-rejection, and counter-school culture. By using the notion of "fantasies", it offers a rethinking perspective on the relationship between agents and consciousness. Ultimately, this article aims to offer a critical lens into the sociology of education by reconsidering students' lives within capitalism in the 21st century.

15:40-16:05

86583 | *A Study of Economic Impact of Child Labor on Education*  
Preety Sharma, University of Delhi, India  
Shikhar Kumar, University of Delhi, India

This study examines the economic impact of child labor on education in India using the panel regression technique and investigates the relationship between child labor and education using a comprehensive dataset spanning from 2000 to 2021. The findings reveal that the child labor exert a significant and negative influence on primary and secondary level education. This suggests that factors like child labor, sex ratio, poverty, family income, infant mortality rate etc. is affecting the school enrolment and drop out ratio. However, the impact of child labor on educational outcomes is very pronounced and exhibits a strong cohort effects across different attainment levels and duly impact the development indicators. The study underscores the importance of disaggregating data to discern rural-urban differentials in the level of education across different Indian states and union territories, a limitation that prompts calls for further research. This distinction is critically given in the heterogeneous nature of socio-economic conditions and access different educational services in rural and urban settings. Future investigations could thus explore the differential impact of child labor on education and economic development, underpinning an inquiries into the impact of child labor on education within India and offering its causal impact in mitigating the policy-making process.

16:05-16:30

88036 | *Incorporating Anti-Corruption Education in Malaysian Higher Education: A Qualitative Analysis*  
Nor Farizal Mohammed, Universiti Teknologi MARA, Malaysia  
Norziana Lokman, Universiti Teknologi MARA, Malaysia  
Norsuhaily Abu Bakar, Universiti Sultan Zainal Abidin, Malaysia  
Norazida Mohamed, Universiti Teknologi MARA, Malaysia  
Norfazzella Mohd Fariz, Universiti Teknologi MARA, Malaysia

Combating corruption entails more than just prosecuting criminals and identifying criminal defects. Alongside regulations and laws, education is a sustainable yet underrated approach to tackling corruption. This preventive measure is critical as corruption has become a pervasive social illness affecting both the workplace and the political sphere, particularly in Malaysia. Hence, this paper aims to propose a multi-platform conceptual framework for how Higher Education Institutions (HEIs) can deliver anti-corruption education in a manner that instills anti-corruptive values. This is critical in providing insights into the effectiveness of programme design and the implementation of education. Drawing upon qualitative research through interviews with key stakeholders in Malaysian HEIs, including university management, educators, anti-corruption agency officers, and politicians, this study employs a multi-layered thematic analysis and coding to answer the research questions. A holistic educational framework is developed, combining formal, non-formal, and informal learning experiences across traditional and digital platforms for the effective integration of anti-corruption education. Formal learning includes a mandatory course on integrity and anti-corruption, made compulsory for all Malaysian HEI students starting in the October 2023 semester. Non-formal learning consists of discussions on real-life cases, ethical dilemmas, and co-curricular activities. Role modelling, ethical leadership, social media engagement, and songs are among the informal learning approaches. This study contributes to knowledge by extending John Dewey's (1937) theory of education and social change and Bandurra's (1977) social learning theory into the area of corruption mitigation. Practically, the framework can be a guide for HEIs to effectively implement anti-corruption education.



**14:50-16:30 | Room 704 (7F)**

# Thursday Onsite Parallel Session 4

## Higher Education

### Session Chair: Andrea Dodo-Balu

**14:50-15:15**

88321 | *Developing a Human Development-Focused Framework to Promote Student Welfare*

Francisco Naranjo, Lakeland University Japan, Japan

Jessica McDonald, Lakeland University Japan, Japan

Student mental health is critical to promoting and ensuring students' meaningful learning and academic potential development. Consequently, Lakeland University Japan, an American satellite EMI setting in Tokyo, has been exploring different approaches to supporting the wellbeing of students while providing an educational experience that responds to policy regulations and society's expectations and gives students skills that boost their role in society. However, Lakeland's context poses policy-related challenges requiring creativity to accommodate its diverse student cohort and the relevant American and Japanese regulatory frameworks. These macro-level challenges have been approached at the administrative (meso) and classroom (micro) levels, drawing on Maslow's human development theory. Based on a review of internal policies and practices, this session highlights the ways through which Lakeland cultivates student mental health and learning. Our research process, focused on identifying effective actions and support mechanisms, following a simplified data-driven coding scheme that identified, contrasted, and considered patterns in relation to Lakeland's policies and customary practices. As part of ongoing research, the presentation discusses the design of a new pedagogical framework helping practitioners explore their context and make contextually responsive decisions. The session likewise discusses assessment practices and how they inform pedagogical decisions, particularly knowledge adaptation. To date, the results suggest that direct involvement with students, curricular knowledge adaptation to student-familiar ideas, and a comprehensive understanding of the environment do promote student wellbeing while increasing motivation and learning. The identified practices are important for Lakeland and other tertiary settings seeking to scale and implement learning- and wellbeing-promoting virtuous cycles.

**15:15-15:40**

87189 | *Preliminary Insights on the Role of Higher Education Institutions (HEIs) in Language Preservation in the Philippines*

David Michael San Juan, De La Salle University, Philippines

As in many developing countries, local languages are under threat in the Philippines because of the neoliberal globalization-induced hegemony of English in schools and in government agencies. At least in the Philippine context, language provisions in the Constitution offer some prospects for the development and implementation of state-led language preservation initiatives. Such initiatives can only be more effective if met with similar and parallel grassroots-driven advocacies. Indeed, ideally, state-led initiatives and grassroots advocacies should complement each other. This paper argues that higher education institutions (HEIs) are in a prime position to integrate and strengthen the linkages between such state-led and bottom-up initiatives for local language preservation. In view of this, this paper is aimed at offering preliminary insights on how HEIs can contribute in activities that help in language preservation efforts such as documentation, codification, institutionalization, and communalization.

**15:40-16:05**

85505 | *Co-teaching in Higher Education: Making it Work in Intercultural Teaching Teams*

Andrea Dodo-Balu, University of Melbourne, Australia

Barbara Bynder, Curtin University, Australia

Over a five-year period, we were involved in co-teaching a core intercultural subject to first year undergraduate students. The unit had a focus on the Indigenous experience in Australia, with a key feature being the co-teaching arrangement between an Indigenous and non-Indigenous teacher. Although there is strong research that fosters positive support for co-teaching, Lock et al., (2017) propose that co-teaching relationships cannot be assumed to occur naturally or simply. For us, there was a dedicated focus on developing a relationship of trust which allowed us to react and respond to each other, and the students, with consideration and care in the dynamic environment of the classroom. This was extremely important in the subject we taught, which dealt with challenging and distressing topics related to Indigenous and non-Indigenous Australian society and involved teaching teams from different cultural backgrounds historically affected by stereotyping and distrust. In this context, we were able to develop a successful co-teaching relationship which enriched both the student experience and our own. In this presentation, we reflect on and share our key insights into what worked for us in intercultural co-teaching. Our experience is characterised by openness, mutual respect, and a shared understanding of the need for flexibility in the teaching relationship, to maximise teaching and learning outcomes through the identified individual strengths that we each brought to the classroom.

**16:05-16:30**

85382 | *Women2Women: Leadership Perspective of Women Leaders in Empowering Women*

Daizylyn Palillo, Polytechnic University of the Philippines, Philippines

This research explores the empowerment of women through diverse perspectives and role modeling, with a focus on the significant impact of ethical leadership in fostering gender equality. The study involved five women presidents from State and Local Universities and Colleges in Luzon, Philippines. Empowerment through education is identified as a crucial factor for women's advancement, influencing their perspectives on leadership and organizational systems. The findings reveal that empowered women leaders positively impact their institutions by encouraging innovation and fostering a supportive environment for all stakeholders. While the study initially focuses on women-to-women empowerment, it further reveals that women leaders strive for gender equality as a broader goal. Empowered women leaders influence positive organizational change and innovation, highlighting the necessity of supportive leadership models in human resource development that foster creativity and innovation. Empowerment extends beyond strategic decisions to daily choices, requiring structures that support women, such as flexible schedules and a culture of respect. Despite the traditional male dominance in leadership positions, women demonstrate essential skills and determination, with their nurturing contributions often providing an advantage over men. This finding emphasizes the importance of incorporating women's perspectives, regardless of their leadership expertise. Empowering future leaders encompasses both men and women, with current presidents exemplifying selfless service to stakeholders and the institution. This sets a standard for influence, encouraging both men and women to excel in their respective fields and develop their skills to benefit others.

14:50-16:30 | Room 705 (7F)

# Thursday Onsite Parallel Session 4

## Curriculum Design & Development

### Session Chair: Punsak Ekpornprasit

14:50-15:15

85297 | *Gap Analysis Between Program Expectations and Competency Outcomes of Students in Industrial Education of Electrical Engineering for Curriculum Improvement*

Wannarat Kaewthong, King Mongkut's University of Technology Thonburi, Thailand

Komkrit Chomsuwan, King Mongkut's University of Technology Thonburi, Thailand

Suchapa Netpradit, King Mongkut's University of Technology Thonburi, Thailand

To provide a good curriculum for producing valuable graduated students as technician teachers, the specific skills in engineering, professional teaching ethics, and teacher certification were integrated as the requirements of stakeholders. This study focused on the gap analysis for the competency of undergraduate students in the 4th year of the Bachelor of Industrial Education program in Electrical Engineering at KMUTT. The questionnaire for self-evaluation with 4-level rubric scales was created to determine the qualitative and quantitative data in 3 domains for a sample group of 39 students from 2 academic years. For the first domain, teaching management skills with 8 indicators showed that the average scores were at a moderate level (mean = 3.13), with weaknesses in competencies of lecturing/explaining, learning outcome assessment and problem-solving which needs to be urgently improved. The second domain related to specific electrical engineering skills with 19 indicators showed that the current competencies were below the expected levels in some skills (mean = 2.95) but the students were very good in problem identification. The third domain was related to some important characteristics and professional ethics for teachers with 15 indicators. The students' current competencies were at a good level (mean = 3.46), with strength points in honesty and professional responsibility but the areas for improvement were leadership and emotion control. Therefore, the gap of student competencies determined with radar charts were effectively applied for curriculum improvement by applying outcome-based education module (OBEM) and create short courses to match the competencies you want to enhance in various skills.

15:15-15:40

88374 | *Curriculum Reform in Data Science Education: Enhancing Learning Outcomes with Scaffolding Learning Through Data Storytelling (SLDS)*

Yiyun Fan, National University of Singapore, Singapore

Kah Loon Ng, National University of Singapore, Singapore

Wan Mei Amanda Soon, National University of Singapore, Singapore

Data storytelling (DS) employs narrative and visualization techniques to communicate insights from data, offering potential benefits for educational settings. This study introduces the framework of "Scaffolding Learning through Data Storytelling (SLDS)" as an explanatory approach to enhance students' learning outcomes in an undergraduate general education course on data literacy. Building on the key DS principles from Ryan (2016) and Knaflitz (2015), we created a series of data stories to address students' diverse challenges in learning data science, taking into account their varied academic backgrounds, including STEM and non-STEM disciplines and differences in academic year. Incorporating Hadwin and Winnie's (2001) concept of "tacit scaffolds", SLDS integrates these stories into the curriculum stage by stage, aiming to enhance student engagement and understanding by encouraging them to read and think without explicitly directing or instructing specific studying activities. The effectiveness of SLDS was assessed through students' self-reported metrics of satisfaction, decision quality, motivation, and confidence, as well as multiple-choice questions measuring content comprehension. We anticipate that SLDS will improve learning outcomes more effectively than traditional methods, providing insights into easy-to-approach data narrative structuring and visualization design and its educational benefits for students from all backgrounds. This study aims to offer evidence on the application of DS in teaching and learning, laying a foundation for incorporating DS techniques into curricula and informing future educational practices for various educational levels and disciplines.

15:40-16:05

88335 | *Future of Civil Engineering: Trends and Challenges*

Yasser Mansour, Prince Sultan University, Saudi Arabia

This paper investigates and explores the satisfaction of the stakeholders of civil engineering with the existing academic curriculum of civil engineering programs and their readiness to face the current and expected challenges that will be faced in the future in different regions of the world. Also, the study discusses the emerging technologies expected to have a significant impact on the field, the major infrastructure challenges likely to be faced by civil engineers in the future, the role of sustainable practices or technologies in shaping the future of civil engineering, the new skills that civil engineers should acquire to thrive in the coming years, and the satisfaction with the profession selection. An extensive survey was designed to gather valuable feedback from diverse stakeholders within the field of civil engineering. The survey encompassed a wide range of participants, including students, trainees, academics, and civil engineers with varying levels of experience and professional roles. The survey was conducted across multiple regions, including North Africa, the Gulf region, South Asia, and North America, ensuring a global perspective on the subject matter. A total of 68 responses were collected, providing a robust dataset for analysis. Among the participants, approximately 57% were academics, contributing their expertise and insights from an educational standpoint. The remaining 40% consisted of engineers holding various positions within the industry, such as site engineers, office engineers, and construction project managers. This diverse representation across different roles within the field adds depth and richness to the findings.

16:05-16:30

84852 | *Development of a Learning Model Integrating Service Learning and Experiential Learning in the Educational Communication Technology Curriculum*

Punsak Ekpornprasit, King Mongkut's University of Technology Thonburi, Thailand

The purpose of this research was to develop the Service-Learning and Experiential Learning model, Implement the LMISEL model and Study the satisfaction of students with the LMISEL model in the Communication Technology in Education curriculum. The experimental research samples were 100 Students, Simple Random Sampling. The instruments used in this study were LMISEL model and Satisfaction Assessment of students with the LMISEL model. The research findings were as follow: 1. The LMISEL process typically involves the following steps; Preparation, Service-Learning Experience, Analysis, Application, and Assessment, 2. Implement the LMISEL model into curriculum design for the Knowledge Management course for 4th year students in the Technology and Communication Education program, Faculty of Technical Education, King Mongkut's University of Technology Thonburi. Students undertake knowledge management by creating an Electronic book for the Royal Thai Police Office. Learning Outcomes: Apply concepts and principles of knowledge management to develop easily understandable and informative learning materials. Teaching and Learning Activities were as follow: Theoretical Instruction, Collaboration with Police Scientific Evidence and Identification Division, Student Project Development, Project Presentations and Implementation. and 3. The LMISEL model satisfaction assessment was overall at the highest level. The feedback from students found that it was a very good experience to have the opportunity to work with large organizations and learn the work processes, gaining more understanding of the work of CSI Thailand and inspiring future careers. This project greatly developed their learning.

**14:50-16:30 | Room 707 (7F)**

# Thursday Onsite Parallel Session 4

## International Education

### Session Chair: Ranahansa Dasanayake

**14:50-15:15**

88210 | *Migration for Higher Education in Taiwan: Exploring Factors that Influence International Students' Mobility to Study Abroad*  
Jenelle Morris, National Taiwan Normal University, Taiwan

Despite the global competitiveness of colleges and universities to attract and enroll international students, Taiwan has experienced a notable surge of foreign students for higher education in recent years. Existing research identified Taiwan's New Southbound Policy (NSP) as a major contributing factor towards the growth of foreign students. This policy was purposefully designed to influence Taiwan's commitment to agriculture, education, and technology among the six states in South Asia, Australia, and New Zealand. This qualitative study explored factors that influence international students from outside the Asian Pacific decision to study in Taiwan. Data was collected via semi-structured interviews to gain insights into international students' intrinsic and extrinsic motivational factors, university selection, preparation process pathways, and overall satisfaction with studying in Taiwan. Data obtained were analyzed using a thematic analysis approach to generate the study's findings. The results show that the scholarship opportunities due to Taiwan's diplomatic relations with their country and self-development to obtain a higher education degree are the most significant intrinsic and extrinsic factors that influenced foreign students' decision to study in Taiwan. The experience also allowed them to immerse themselves in a new culture. Additionally, it was found that students' university choice was based on their own personal interests and the preparation process for university is not challenging. Overall, their university experience was found to be a great one. Implications emphasized the need for higher education institutions in Taiwan to have resources to continue attracting international students to remain competitive in the internationalization of higher education.

**15:15-15:40**

88809 | *Sociocultural Approach to Study Abroad: A Case in an International Professional Postgraduate Program in Aotearoa New Zealand*  
Jet Tonogbanua, University of Auckland, New Zealand

A sociocultural approach to learning and teaching means having an awareness of the contexts where an activity is taking place. As John-Steiner & Mahn (1996) put it: "Sociocultural approaches emphasize the interdependence of social and individual process in the coconstruction of knowledge" (p. 191). It is having sensitivity to the student's inner (the mind) and outer world (the learning environment) in designing and co-creating learning opportunities (Eun, 2010). In this presentation, I will discuss how embedded literacy is implemented in the postgraduate programme at a university in New Zealand and how language support is made available to the international students enrolled in a Master of Business programme. I will also present how I tailor my approach based on a sociocultural theory. Data for the analysis were taken from students' feedback which were then analysed thematically (Braun & Clarke, 2021). Initial findings suggest that they are very appreciative and are benefiting from the support. Key concerns, however, include consistency and demand for more discipline-related feedback.

**15:40-16:05**

85243 | *Internationalization of Higher Education Through Joint Degrees*  
Maria Pilar Garcia-de-la-Torre, University of A Coruña, Spain  
Begona Crespo, University of A Coruña, Spain

The internationalization of Higher Education is an ongoing and rapidly growing trend at a global level in the 21st century. European institutions, through the European Higher Education Area, have been transforming the Higher Education systems of member countries in order to homogenize university diplomas and thus favor the mobility of students and staff and increase the attractiveness and competitiveness of universities. Among the actions that promote internationalization is the development of double or joint degrees between two or more institutions in different countries. For this purpose, several lines of financing have been opened in the European Commission, among which the Erasmus program with the call European Universities, stands out. However, other previous transboundary regional development programs, such as Interreg, have made possible the development of university consortia for the creation of joint degrees. This is the case of University without Borders, which launched two joint master's and two doctoral programs between the 3 public universities of Galicia (Spain) and 3 public universities of Northern Portugal. In this article we will analyze how the consortium came about, and the challenges faced by the 6 universities to achieve their objectives, as well as some advice for future consortia.

**16:05-16:30**

84577 | *Leveraging eLearning for Education for Sustainable Development: Insights from a Multi-year Global Trial*  
Ranahansa Dasanayake, Trier University of Applied Sciences, Germany  
Aurélien Kono, Trier University of Applied Sciences, Germany

Over four decades, education for sustainable development (ESD) has evolved from an idea to an actionable framework, including a road map toward 2030. While gaining momentum at the turn of the 21st century with information technology (IT) advancements, the universal utility of eLearning was validated during the COVID-19 pandemic when it became the predominant teaching-learning solution globally. Despite its versatility, and potential, eLearning for ESD remains underutilised. To that end, this work aims to share insights from a global trial conducted by the International Material Flow Management Network University (IMAT-NU) since 2018 grounded in ESD. The course in focus deals with complex systems optimisation for resilient societies in the energy-climate era. Targeted at graduate students in the International Material Flow Management Master's program, the annually offered course has ca. 50 enrolments from around twenty countries. Organised in a cross-university student cohort setting, the course covers key subjects, including climate change, climate financing, circular economy, and zero-emission systems design for resilient societies. Pedagogical and learning aspects (synchronous and asynchronous) were analysed using the community of inquiry (COI) framework. Findings indicate significant challenges in "teaching presence" stemming from IT infrastructure limitations where course management requires substantial human capital to address geographical, cultural, and language diversity challenges. Additionally, self-directed learning (particularly andragogical aspects) poses a significant challenge in "cognitive presence". Overall, the insights demonstrate eLearning's leveragability to efficiently and cost-effectively mobilise pedagogical resources while developing an internationally oriented community of learners and facilitating global outreach for a crucial subject of the Anthropocene: resilience.

14:50-16:30 | Room 708 (7F)

# Thursday Onsite Parallel Session 4

## Teacher Education

### Session Chair: Hlologelo Climant Khoza

14:50-15:15

86286 | *Pre-service Teachers' Undergoing a Second Teaching Practicum: Thoughts, Perceptions and Impacts on Future Careers as Early Childhood Educators*

Menn Sze Chua, HELP University, Malaysia

As part of graduating requirements, the Diploma in Early Childhood Education (DECE) and Bachelor of Early Childhood Education (BECE) require all students to undergo 6-8 weeks of practicum training for each program. While most students enter the BECE with a pre-university qualification, some students choose the route of undertaking both the DECE and BECE, thus they undergo the practicum twice. This study focused on the experiences of 4 pre-service teachers and investigated if the practicums played a role in ascertaining decisions to become Early Childhood Educators. 3 research questions were formulated to meet the study's aims; who were the pillars of support to the pre-service teachers' throughout their journey, what were their perceptions of the teaching profession and how did the practicums impact their intentions to pursue a career as a preschool teacher. Using the qualitative approach, data comprised individual reflective entries throughout their practicums and a focused group interview carried out after the practicum. Lave and Wenger's (1991) Community of Practice's provided the theoretical framework while a thematic analysis was used to analyse the data collected. Findings showed that the students found the practicum challenging and trying despite having prior experience in DECE. However, having their pillars of support such as peers and the community at the practicum centre helped make their practicum experiences bearable. Finally, results showed that most of them do not intend to pursue a career in becoming a preschool teacher.

15:15-15:40

88188 | *Podcast-Making in Teacher Education: Fostering Critical Discourse and Collaborative Learning with Pre-Service Teachers*

Delecia Davids, Stellenbosch University, South Africa

Elzahn Rinquest, Stellenbosch University, South Africa

In contemporary higher education classrooms, student engagement has become an increasingly prominent challenge in large classes. As teacher educators, we have engaged in a joint curriculum renewal project to address these challenges in two preservice teacher modules. This presentation focuses on our practice-based research process of scaling a smaller podcast-making project into the course content and assessments in a preservice teacher-education programme in South Africa. Drawing upon the theoretical foundations of teacher identity and teacherly becoming proposed by Deleuze & Guattari, Bhabha, and third-space concepts articulated by Soja, the study examines the transformative potential of podcast-making as a contemporary skill for teaching and learning in the 21st century. Podcast-making is an 'invention project' involving experiential, project-based learning, incorporating maker-education and maker-centred learning practices. The study explores teacher identity construction and pedagogical becoming through podcast-making as a pedagogical tool in curriculum renewal, based on data from reflective practices and insights gained during planning and implementation phases. The findings underscore the significance of podcast-making in fostering critical reflection, creative expression, and collaborative learning among pre-service teachers. Moreover, the study elucidates the affordances and challenges associated with scaling innovative pedagogical practices within teacher education programs. This presentation aims to clarify curriculum design choices and explore socio-material dynamics in integrating podcast-making skills, contributing to deeper understanding of teacher identity formation and pedagogical transformation in 21st-century education. The insights gleaned from this study hold implications for curriculum design, pedagogical practice, and the cultivation of future educators equipped to navigate the complexities of contemporary educational landscapes.

15:40-16:05

88552 | *Probing Prompting to Excavate Pre-Service Elementary School Teachers' Reflective Thinking Ability*

Neni Mariana, Universitas Negeri Surabaya, Indonesia

Zaenal Abidin, Universitas Negeri Surabaya, Indonesia

Nurul Istiq'faroh, Universitas Negeri Surabaya, Indonesia

Mela Darmayanti, Universitas Pendidikan Indonesia, Indonesia

Duhwi Indartiningsih, Universitas Negeri Surabaya, Indonesia

Ganes Gunansyah, Universitas Negeri Surabaya, Indonesia

Reflection is integral to teacher education, as it helps educators envision their future identities and align their teaching practices with their ideals. Being reflective is a must for a teacher. The aims of this study are to portray pre-service teachers' reflective thinking ability and the impact of their reflections to their teaching practices. The data was collected from three times of Focus Group Discussion with pre-service teachers from two universities in Indonesia who had been in the middle of their internship course on professional teacher program. Probing prompting approach was used during the FGDs to help them fulfilling the reflective indicators. The results show that pre-service teachers tend to do reflection not only during the reflection phase after the lesson, but they also do reflection during the planning and implementing phases. The way to do the reflection was varied from discussing with home teachers and colleagues, exploring relevant literatures, until doing self-reflection of their previous experiences and observation. Teachers do reflection to understand their weaknesses so that they can enhance their teaching practices. Reflection on student responses allows teachers to adapt their methods, thereby improving learning outcomes.

16:05-16:30

82534 | *Using Critical Incidents to Evaluate Pre-Service Teachers' Development of Pedagogical Content Knowledge During Teaching Practice: A Case of Teaching Natural Sciences*

Hlologelo Climant Khoza, University of Pretoria, South Africa

Teaching practicum is regarded as an avenue for bridging the gap between theory and practice as well as developing pre-service teachers' teaching competencies. Pre-service teachers learn about teaching their subjects as well as putting into practice the theoretical knowledge that they learn in initial teacher education programmes. The purpose of this study was to evaluate pre-service teachers' teaching practice and professional development during teaching practice. This study was guided by the situative theory and pedagogical content knowledge construct (PCK) as lenses to understand what the pre-service teachers reflect on their experiences of teaching practice. The participants were 78 4th year Natural Sciences pre-service teachers who were exposed to teaching practice of 7-weeks. Data was collected through pre-service teachers' written narratives on the incidents that they experienced during their teaching practice. The data set was subjected to both narrative analysis and analysis of narrative approaches. I unpack the incidents that the pre-service teachers experienced and how they dealt with these incidents to make inferences regarding their professional development. Through using written narrative reflections, I was able to glean the incidents that the pre-service teachers experience and the needs for professional development. This study suggests the use of written narrative reflections to evaluate pre-service teachers' learning as well as the need for professional development of pre-service teachers after teaching practice as well as in their first years of teaching.





# Friday, November 29

## Online Parallel Sessions

**All times are Japan Standard Time (UTC+9)**

Abstracts appear as originally submitted by the author. Any spelling, grammatical, or typographical errors are those of the author.

09:15-10:55 | Live-Stream Room 1

# Friday Online Parallel Session 1

## Development & Practices in STEM & Design Education

### Session Chair: Chu Cheng Ma

09:15-09:40

88296 | *Bibliometric and Thematic Analysis of Science Education in Global Perspective*  
Mikaela Patricia Maningo, Saint Joseph College of Sindangan Incorporated, Philippines  
Jovito Jr Anito, Jose Rizal Memorial State University, Philippines

This bibliometric and thematic analysis provides valuable insights into the current status of science education on a global scale, based on research production, impact, and thematic evolution. The analysis covered 12,869 documents retrieved from the Scopus® database, related to science education and published between 2016 and 2023. The bibliometric analysis revealed that the majority of research in science education originates from Western and developed countries, with many studies published in reputable journals such as *Cultural Studies of Science Education*. Additionally, the level of collaboration among countries was visualized using VOSviewer, demonstrating frequent collaboration among countries that share similar beliefs or are geographically proximate. The thematic analysis identified several key themes within science education, including “university”, “skills”, “embedded systems”, “teacher-to-human”, and “learning environment-to-computational thinking” nexus, as essential factors for delivering quality science education. The movement of these themes across quadrants was monitored over two periods: before and during the COVID-19 pandemic. The results highlight various factors and gaps in delivering science education globally, with a focus on economic disparities among countries. Developed countries, which produce more research related to science education, benefit from this in their current status as developed nations. This study aims to address these gaps and assist developing countries in planning, assessing, and improving their competence in delivering science education globally through the findings of this paper.

09:40-10:05

85389 | *The Role of a Student-Centered Approach in Developing 21st Century 4Cs Skills via a Project-Based STEM Curriculum*  
Vidujith Vithanage, Lincoln University College, Malaysia  
Nicola Nakashima, St. George's Teacher Training Institute, Sri Lanka

The study aims to investigate the role played by the student-centred approach to teaching and learning in the transfer and development of the 4Cs (creativity, critical thinking, collaboration and communication) of 21st-century skills via a project-based STEM curriculum. In a rapidly changing world with technological advancements, where most algorithmic functions are on the verge of automation, 4Cs have become pivotal for future career success. Thus, the schools, being institutions that prepare students for the future, should be able to equip them with the required skill set through the curriculum and instructional approaches used. Project-based learning and STEM learning are the two most popular strategies for cultivating 21st-century skills. There is substantial empirical evidence to support the positive impact project based STEM has on the 4Cs. It is equally important to understand the influence of the pedagogical approaches on the positive nurturing relationship between project-based STEM and the 4Cs of 21st century skills. The context for the current study is created at the middle school level in an international school in Colombo, Sri Lanka. The study used a mixed method research prerogative to explore the effects of the student-centred instructional approach on project-based STEM curriculum. The quantitative and qualitative data analysis converged on a student-centred instructional approach to significantly impact the acquisition and development of 4Cs through a project-based STEM curriculum, thus qualifying a student-centred pedagogical approach as a recommended instructional method for project-based STEM.

10:05-10:30

88216 | *Artificial Intelligence in Art and Design Education: A Bibliometric Analysis Using VoSviewer*  
Jirarat Sitthiworachart, King Mongkut's Institute of Technology Ladkrabang, Thailand  
Zhaodi Li, King Mongkut's Institute of Technology Ladkrabang, Thailand  
Thanin Ratanaolarn, King Mongkut's Institute of Technology Ladkrabang, Thailand

The integration of artificial intelligence (AI) into education has significantly improved learning outcomes and student engagement. However, its specific applications and benefits in art and design education remain understudied. This study aims to comprehensively evaluate the research status and development trend in this field. Using bibliometrics and VOSviewer, the relevant literature on artificial intelligence in art design education in Scopus database is deeply analyzed. AIED framework, a framework regarding the use of AI in education, also used to evaluate results of bibliometrics analysis. Research in this field began in 2020, but the number of relevant papers is limited, only 130, with major contributions from China, the United States and Australia, and the literature retrieved is mainly in English. The gap between its maturity and potential benefits to education and its application in education is reviewed. This study highlights the key considerations for the effective AI integration into art and design education. However, based on AIED Technologies framework, the research results show that there is still a lack of in-depth research on the application of Gen-AI technology, especially on expert systems, personalized learning system, and visualizations and virtual learning environments, in art design education in the existing literature. This study provides valuable references for art and design educators who are leading innovation in AI education, and suggests further exploration of the educational potential of Gen-AI technology.

10:30-10:55

87374 | *Optimizing Automotive Styling Design Curriculum Through Exploratory Factor Analysis in Educational Environment*  
Chu Cheng Ma, National Cheng Kung University, Taiwan  
Meng-Dar Shieh, National Cheng Kung University, Taiwan

This research revolutionizes automotive styling education by integrating exploratory factor analysis, student-drawn car sketches, and Kansei engineering vocabulary. By fostering design creativity and analyzing emotions elicited by designs, it empowers students with practical data skills. The research methodology is meticulously designed to encompass three key stages: First, 58 students are instructed to create car sketches from a unified perspective, resulting in a diverse collection of 546 unique works. Following this, a panel of 74 participants is convened to select the 100 most popular sketches and conduct a Kansei engineering vocabulary survey, exploring the emotions elicited by each design. Lastly, an online questionnaire utilizing seven distinct Kansei engineering vocabulary – “excessive”, “advanced”, “innovative”, “modern”, “classic”, “retro”, and “outdated” – is administered to evaluate each work on a Likert seven-point scale. This rigorous process yields 113 valid responses, providing a solid foundation of data for uncovering the pivotal factors that influence automotive styling evaluation. An in-depth examination of the Kansei engineering vocabulary has identified two core elements: “Super Creative” and “Traditional,” with a KMO value of 0.764, suggesting an adequate level of sampling adequacy. These primary components exhibit strong explanatory power, accounting for 78.184% of the total variance 4.135 (59.07%) and 1.338 (19.114%), respectively, providing a concise and effective framework for evaluating automotive styling. This breakthrough simplifies the evaluation process while enhancing its precision, leading to more efficient and accurate assessments.

# 09:15-10:55 | Live-Stream Room 2

## Friday Online Parallel Session 1

### >Case Studies in Higher Education & TVET

#### Session Chair: Joshua Desmond Chan

**09:15-09:40**

88525 | *Understanding the Effectiveness of Clustered vs. Semester-Based Classes on Computer Engineering Students Academic Performance in Cebu Institute of Technology*

Jundith Alterado, Cebu Institute of Technology - University, Philippines

Johnalyn Figueras, Cebu Institute of Technology - University, Philippines

This study aims to understand and compare the effectiveness of clustered and semester-based classes on student performance in higher education institutions, specifically for Computer Engineering students at Cebu Institute of Technology University. It focuses on academic proficiency, knowledge application, retention, collaboration, and logical thinking. A survey was conducted with 98 respondents who have experienced both clustered and semester-based classes to measure these areas. Using a within-subject research design, the study conducts a comparative analysis with a paired, two-tailed t-test. Additionally, the study will use a linear regression model to determine the significance of the two approaches that influence the students overall academic performance. The results reveal that students perform better in semester-based classes, as indicated by a negative t-statistic and a p-value well below the threshold for statistical significance. Furthermore, the regression analysis confirms that semester-based classes have a more substantial impact on academic performance. These findings suggest that semester-based classes are more effective in enhancing student performance, which could inform future course design and teaching strategies in Cebu Institute of Technology—University.

**09:40-10:05**

88367 | *Development of a Digital Embroidery Museum Integrated with VR for the Preservation of Intangible Cultural Heritage*

Ran Shao, King Mongkut's Institute of Technology Ladkrabang, Thailand

Juntao Li, Yunnan Technology and Business University, China

Thoriq Tri Prabowo, Universitas Islam Negeri Sunan Kalijaga Yogyakarta, Indonesia

Atit Tippichai, King Mongkuts Institute of Technology Ladkrabang, Thailand

Embroidery, a vital component of cultural identity, represents the traditions, narratives, and symbols unique to specific communities, ensuring cultural practices continuity across generations. This study aims to develop a virtual reality (VR) interface for an embroidery museum dedicated to preserving intangible cultural heritage, with a specific focus on Yunnan embroidery. By utilizing UE software and VR technology, this research employs a convergent mixed-methods design. Five experts, selected through simple random sampling, evaluated the developed digital museum both quantitatively and qualitatively. The evaluation utilized a questionnaire assessing user perceptions of authenticity through the digital museum, with responses measured on a 5-point Likert scale. Quantitative data were analyzed using descriptive statistics, while qualitative data were examined through thematic analysis. The experts' assessments indicate that the digital museum demonstrates a high potential for preserving intangible cultural heritage, with an average score of  $M = 4.73$  ( $SD = 0.23$ ). VR, with its immersive and engaging experience, has the potential to deeply connect users with the cultural heritage of embroidery. The high-resolution displays and intuitive interfaces enhance user interaction and emotional engagement and create an exciting and intriguing experience. Despite identified challenges such as the need for high-quality hardware and software for optimal performance, along with the requirement for continuous updates and maintenance, the study presents a highly immersive experience. This immersive experience enables users to engage deeply with the cultural heritage of embroidery and fosters greater appreciation and understanding of traditional crafts, sparking excitement about the potential of VR technology in cultural preservation.

**10:05-10:30**

88244 | *Development of Video with Microlearning on Soil Research to Enhance Learning Achievement of Students at Sichuan University of Science and Engineering*

Dong Ming, Rajamangala University of Technology Thanyaburi, Thailand

Thidarat Kulnattarawong, Rajamangala University of Technology Thanyaburi, Thailand

The objectives of this study were to: 1) develop video with microlearning on soil research to enhance learning achievement of students at Sichuan University of Science and Engineering, 2) compare the learning achievement of students between pre-test and post-test scores after using video with microlearning on soil research, and 3) study the satisfaction of students using video with microlearning on soil research. The sample of this study was 30 students majoring in environmental engineering at Sichuan University of Science and Engineering in China, in the academic year 2024. They were selected by using purposive sampling. The research instruments consisted of 1) video with microlearning on soil research, 2) questionnaire of content and media quality, 3) questionnaire of learning achievement, and 4) questionnaire of students' satisfaction. The research results revealed the following: 1) An evaluation of the video content quality on soil research by the experts showed the appropriateness at the excellent level ( $= 4.83$ ,  $SD = 0.23$ ) and an evaluation of media quality by the experts also showed the appropriateness at the excellent level ( $= 4.50$ ,  $SD = 0.58$ ). 2) The post-test scores of learning achievement were higher than the pre-test scores with statistically significant difference at the .05 level. 3) The student's satisfaction on using video with microlearning on soil research was at the satisfied very good level ( $= 4.64$ ,  $SD = 0.54$ ) as well.

**10:30-10:55**

82574 | *Potential of Service-Learning in the Development of LifeSkills Competencies in Students in TVET Settings*

Joshua Desmond Chan, Temasek Polytechnic, Singapore

The introduction of the LifeSkills Framework by the Singapore Ministry of Education in the polytechnic and institute of technical education (ITE) settings has prompted these institutions to contextualise the skills and competencies in the framework in the existing curriculum. In Temasek Polytechnic, the institution adopted a whole-school and experiential learning approach in nurturing LifeSkills competencies in all pre-employment training (PET) students through a compulsory module, Leadership in Action (LEADACT). Hence, the purpose of this exploratory qualitative study is to examine how LEADACT develops LifeSkills competencies in technical and vocational education and training (TVET) students. The study comprised two phases. In the first phase, a self-reported questionnaire was administered to all students taking the module. In the second phase, focus group interview was used to gather insights from the participants. Overall, the study found that there appeared to be a greater level of self-awareness and understanding of community needs. The participants reported enhancements in their collaboration, communication, and interpersonal skills. These findings suggest that service-learning may be effective in nurturing LifeSkills competencies in TVET students.



09:15-10:55 | Live-Stream Room 3

# Friday Online Parallel Session 1

## Innovative Strategies in Language Learning

### Session Chair: Akemi Ishii

09:15-09:40

85933 | *Using Flipped Classroom to Improve the Korean Reading Ability and Learning Motivation of First-Year Korean Students*

Jun Wang, King Mongkut's Institute of Technology Ladkrabang, Thailand

Jirarat Sitthiworachart, King Mongkut's Institute of Technology Ladkrabang, Thailand

The traditional classroom model no longer meets students' academic needs. Flipped classrooms offer a more innovative approach by allowing students to grasp knowledge before class. This study aims to determine the effectiveness of flipped classroom teaching methods for improving students' Korean reading ability and learning motivation among Korean Major students. This is an experimental research design. Forty first-year undergraduate students at a university in China were participated in this study. We adopted a two-group post-test design, with a flipped classroom for experimental group students, and traditional face-to-face teaching methods for control group students. Each group consisted of 20 students. The independent sample t-test was used to analyze the data. The descriptive statistics revealed that the mean score of reading ability for experimental group was 81.95 (SD=6.91661), and control group was 79.05 (SD=9.05815). While, for learning motivation score, the experimental group obtained 4.5 (SD=0.25597) and control group was 3.6214 (SD=0.32203). The independent sample t-test results revealed that there is a significantly different between two groups in reading ability and learning motivation, with  $p=0.04$  and  $t=-2.119$  for reading ability, and  $p=<0.001$  and  $t=-9.551$  for learning motivation. It can be seen that scores of the experimental group are higher than those of the control group. Through this study, the flipped classroom teaching model is conducive to improving reading ability and learning motivation. For a better flipped classroom effects, adding various teaching activities will mobilize students' learning motivation. Gathering students' learning experience and feedback for continues improvement is also necessary.

09:40-10:05

85429 | *Exploring the Role of Pre-editing in MT Quality Improvement*

Kayo Tsuji, Osaka Metropolitan University, Japan

Kiyo Okamoto, Osaka Metropolitan University, Japan

Benjamin Neil Smith, Osaka Metropolitan University, Japan

Neural machine translation (MT) replicates human brain networks (Goto, 2017) and is often considered a "black box" due to its unexplained structure and function. To use MT effectively, target language (TL) learners should pre-edit source language (SL) documents, similar to how humans paraphrase L1 texts before translating to L2 (Tsuji, 2024). Previous studies have shown that pre-editing SL texts improves the quality of MT output (Feifei et al., 2022; Kokanova et al., 2022). However, the specific differences between with and without editing MT translations have been less explored. This study aims to compare MT translations with and without pre-editing and examine the impact of pre-editing on the quality of target-language texts. The study involved 131 Japanese university students with intermediate English proficiency, each composing a Japanese essay which was translated into English using MT. Three language researchers compared and analyzed the MT translations. They systematically classified detected issues, primarily lexical and grammatical. The results showed that MT translations without pre-editing displayed errors that were not present in MT translations with pre-editing. The most common errors specific to MT translations without pre-editing were 'inappropriate subject use' and 'unclear meaning'. Pre-edited MT translations were generally comprehensible and contained minor errors ('inappropriate use of language') that did not significantly affect comprehensibility. This study indicated that pre-editing source texts is essential for improving the quality of MT translations. The tips for pre-editing could potentially be used as strategies of L1 paraphrasing required for the human L2 translation process.

10:05-10:30

86427 | *Lexical Processing in Developing Vocabulary Skill Among English as a Second Language Learners*

Alexander Ibni, Zamboanga Peninsula Polytechnic State University, Philippines

The analysis of lexical processing provides a clear direction on the psychological dimension in language learning. In this study, lexical processing is classified into two categories: lexical decision task, a procedure used in psycholinguistic experiments wherein respondents classify visual stimuli as words or non-words and; category naming task which allows respondents to generate as much items as they can and as quickly as possible. Hence, the main objective of this study was to determine the lexical processing performance of the ESL students and to examine if there is a significant difference in their lexical processing ability based on socio-economic status. Thus, this study utilized a descriptive quantitative research design by which the respondents' lexical processing was measured and scored based on accuracy and the total number of lexical items retrieved. The results revealed that ESL students are average in both lexical decision and category naming tasks with the mean values (53.9177 & 58.3304) and their respective standard deviation values (42.03345 & 14.91814). Moreover, the findings revealed that there is a significant difference in lexical processing performance based on socio-economic status as evidenced by the F values (12.491 & 5.657). This concludes that socio-economic status is a factor that can influence the students' lexical processing in developing their vocabulary skill. However, this study suggests that despite the socio-economic status, sufficient exposures to various learning resources would help develop students' vocabulary skill and improve their lexical retrieval as they get more acquainted with vast number of lexical items.

10:30-10:55

88859 | *Development and Implementation of a Pronunciation Learning Website*

Akemi Ishii, Shibaura Institute of Technology, Japan

In this study, we developed a pronunciation teaching material website that can be operated from a PC or a smartphone. The site targets words and expressions studied in class. It can be used in the classroom, but learners can also self-practice pronunciation anywhere. The English audio was created using a free, high-quality speech synthesis site. We selected each word or expression from a textbook in each class and showed spelling, phonetic symbols, Japanese translations, and a playback button for sample audio. Words and phrases are in order according to the progress of the textbook. We added a search function to enable pinpoint search. Students used this pronunciation site last semester (Fall, 2023) and answered a questionnaire at the end of the semester. The results were highly encouraging, with 76 out of 80 students (95%) finding it easy to use and 73 out of 80 expressing enjoyment in studying pronunciation. Moreover, 73 out of 80 respondents (91%) reported that it can be a tool for learning pronunciation. The free-response section was filled with many positive comments and valuable feedback, further validating the website's effectiveness.



# 09:15-10:55 | Live-Stream Room 4

## Friday Online Parallel Session 1

### AI and Education

#### Session Chair: Jialin Yan

**09:15-09:40**

88664 | *The Process Matters: Academic Integrity in the Age of AI with a Simple Chrome Extension*

Subodh Dahal, Mid-West University, Nepal

Badri Adhikari, University of Missouri-St. Louis, United States

DB Subedi, The University of Queensland, Australia

Manu Bhandari, Arkansas State University, United States

While anti-cheating and proctoring tools exist to combat academic misconduct and promote academic honesty, their focus on outcomes makes it challenging for teachers to pinpoint students' areas of struggle. Moreover, such tools typically detect issues only after they have occurred. In contrast, a preemptive approach could involve assessing students' work processes and not just the products they submit. Such an assessment of the underlying working process can not only positively influence the learning behavior but can also drive student engagement. Process-oriented feedback, in general, enables students to self-identify their habits, strengths, and weaknesses. Similarly, the ability to see students' working processes can also help teachers close the gap between actual and desired learning outcomes. Assessing students' work processes—such as total time on task, paste counts, typing speed, and revision time—assists with ensuring transparency and promoting academic responsibility. Numerous new tools have been developed to guide students on their academic journey and encourage self-reflection. One such tool, Gdoc Process Feedback, provides an infographic report that assesses students' learning during and after writing in any Google Document. Such a process report offers students opportunities for exploration of their working habits. Using the Gdoc Process Feedback Google Chrome extension as an example, this session will demonstrate how an interactive writing process report can facilitate students' self-reflection on their learning process and help them gain valuable feedback from teachers. Overall, the session discusses how teachers and institutions can encourage students to achieve excellence, not just in the outcome, but also in the process.

**09:40-10:05**

88618 | *Demand Analysis for Developing Decision-Making Skills Among Chinese International Students Using the ChatGPT-Enhanced Decision Tree Learning Model*

Yanli Miao, King Mongkut's Institute of Technology Ladkrabang, Thailand

Kanyarat Sriwisathiyakun, King Mongkut's Institute of Technology, Thailand

Thanin Ratanaolarn, King Mongkut's Institute of Technology, Thailand

This study aims to assess the demand among Chinese international students for using the ChatGPT-enhanced Decision Tree Interactive Learning Model to improve their decision-making skills. This study surveyed 101 Chinese international students to assess their needs in decision-making skills and their demand for the ChatGPT-enhanced Decision Tree Interactive Learning Model while identifying the model's key components. The findings reveal the specific needs of Chinese international students in decision-making skills and the essential elements of the ChatGPT-enhanced Decision Tree Interactive Learning Model. These insights provide valuable guidance for developing customized educational models that better meet students' specific needs in decision-making skill enhancement and virtual tourism learning.

**10:05-10:30**

88529 | *Exploring Decision-Making Skills with the ChatGPT-Enhanced Decision Tree Interactive Learning Model*

Yanli Miao, King Mongkut's Institute of Technology Ladkrabang, Thailand

Kanyarat Sriwisathiyakun, King Mongkut's Institute of Technology, Ladkrabang, Thailand

Thanin Ratanaolarn, King Mongkut's Institute of Technology, Ladkrabang, Thailand

This study investigates the impact of the ChatGPT-integrated Decision Tree Interactive Learning Model on students' decision-making skills. By merging artificial intelligence with traditional decision tree methodologies, this model provides a personalized, interactive learning experience that guides learners in gradually constructing and optimizing decision paths, while dynamically adjusting their choices in complex scenarios. The study was conducted with 80 Chinese students at King Mongkut's Institute of Technology Ladkrabang in Bangkok, Thailand, randomly assigned to one of two groups: 40 students used the ChatGPT-integrated model, while the other 40 followed traditional teaching methods. A pre-test and post-test design was employed, utilizing a decision-making skills self-assessment as the primary evaluation tool. Means ( $\bar{x}$ ) and standard deviations (SD) were calculated, and an independent samples t-test was performed to compare the groups. The findings revealed that students using the ChatGPT-integrated model achieved significantly higher decision-making skills scores than those in the traditional teaching group, with differences reaching statistical significance at the 0.05 level. This study introduces a novel approach to enhancing students' decision-making abilities, providing empirical evidence for the potential of AI to foster higher-order cognitive skills in educational technology, and establishing a critical foundation for further integrating AI into education practice.

**10:30-10:55**

88152 | *Culture Facilitation or Confusion? A Qualitative Study on Exploring AI's Role in Asian College Student Identification*

Jialin Yan, University of Rochester, United States

Tianxiang Zhu, University of Rochester, United States

This study focuses on how Asian college students shape their identities and cultures through the use of Artificial Intelligence tools. The research addresses the following questions: 1. What are the attitudes, beliefs, and expectations of Asian college students towards AI? 2. What opportunities and risks, particularly from cultural, language, and gender perspectives, does AI present for Asian college students? Interviews were employed to explore these questions, framed by the Pyramid Model of Intercultural Competence (Deardorff, 2009). The interview questions were revised and designed based on the Technology Acceptance Model (TAM) by Davis (1989), which examines how users' acceptance is affected by technological tools. The data were collected publicly at the University of Rochester, with 21 participants interviewed voluntarily. Moreover, the collected data were analyzed through two rounds of coding using MAXQDA 24.4. The first round of analysis involved in vivo coding, followed by value coding to deeply explore and analyze Asian international students' experiences with AI. The findings revealed that while AI tools are generally viewed positively, with students appreciating the enhanced learning and communication opportunities they provide, there are also significant concerns regarding cultural and linguistic biases. Overall, the study concluded that AI has the potential to both facilitate and confuse cultural identities, depending on how it is integrated and perceived within educational contexts. These insights emphasize the need for culturally sensitive AI design and implementation to better support the diverse needs of international students.

# 09:15-10:55 | Live-Stream Room 5

## Friday Online Parallel Session 1

### Education Development & Policy

#### Session Chair: Shikhar Kumar

09:15-09:40

85465 | *A Comparative Study of Educational Decentralization Policy in Primary and Secondary Education: Indonesian and Australian Approaches from 2003-2023*

David Ginola, Monash University, Australia

This paper provides an extensive review of decentralized education structures in primary and secondary education, focusing on Indonesia and Australia over the period 2003–2023. It looks at how centralized and decentralized governance has changed Indonesia within the context of the country's development and how the structure of federal Australia gives the state the power to govern education on its own. This paper also discusses other education policies that arise out of such autonomy and their implications for quality and performance, among others, things like tiered curriculum and differences in the certification of teachers from state to state. Drawing from theoretical policy evaluation and synthesis of policy documents and research evidence, this paper discusses the effects of decentralization on education accessibility, teacher training, and capacity, a network of the education system, and equity in the two countries. The results indicate that there are differing approaches to the decentralization of education in both countries, statuses, and achievements regarding fairness to students. This comparative analysis provides ideas stemming from the knowledge of how decentralized education systems respond to changes in current society; these thoughts are important in addressing problems and opportunities in the governance of decentralized education.

09:40-10:05

88109 | *Translanguaging and Investment in Multilingual Higher Education Contexts: The Case of One UK University*

Yongqi Zeng, The University of Edinburgh, United Kingdom

Jingyao Shi, The University of Edinburgh, United Kingdom

This research proposes to articulate the fields of translanguaging with that of investment as a way of understanding multilingual interaction in Higher Education as a zone of contact and a potential site of tensions and conflicts. The notion of 'contact zone' (Pratt 1991) captures how university classrooms are becoming multilingual and multicultural sites, where people with various linguistic and cultural backgrounds intersect and interact at such a point. The potential site of tension and conflicts pictures how these classrooms may become fields of struggle for classroom participants to determine conditions and criteria of their legitimacy. On this site, there might be unequal power relations, conflicting ideologies, and existing linguistic hierarchy that lead language users not to translanguaging but to speak monolingually or stay silent. Therefore, this research aims to explore what drives classroom participants in a multilingual higher education classroom to either speak monolingually, translanguaging, or stay silent. Specifically, this study plans to take the case of one UK higher education classroom and proposes the following research questions: 1) What are classroom participants' multilingual practices? 2) what drives classroom participants to talk monolingually, to translanguaging, or to stay silent? 3) how are participants' language choices impacted by conflicting ideologies, cultures, and a sense of legitimacy? This report will present an exploratory review of translanguaging and investment as a way of highlighting the paucity of studies that investigate both concepts jointly and argue for the potential of adopting the lens of investment (e.g., Norton 1995) to explore multilingual higher educational context.

10:05-10:30

88113 | *Education and Society in Transition: The Evolution of Higher Education Majors and Student Choices in Post-1978 China*

Yuqi Zhang, University College London, United Kingdom

In China, from socialism to the market economy, despite the significant impact of reform and opening up on higher education, the bottom-up transformation initiated by individuals has in turn shaped the reform-era society. With both macro- and micro-level analysis, this study discusses the reform from the lens of higher education majors, as well as how it brought about new patterns of status attainment and inequality. Utilising data derived from yearbooks, CFPS (China Family Panel Studies), and CHIP (China Household Income Project), this research examines the historical trends in the setting of majors and individuals' choices, as well as how the transition and education policies influenced inequality. Filling the gap in the understanding of higher education majors, this study provides insights for assessing the transition in the higher education system and its impact on shaping China's social structure. It argues that while Chinese higher education has consistently largely served and responded to the country's needs, the emphasis has changed at different stages. In addition, the deepening of reform has stimulated the decentralization of majors and changes in student choices. By uncovering the ongoing process and potential challenges of reform and opening up, this study aims to contribute to the inconsistent literature about education inequality in transforming China and to bridge the research gap of the oversight of higher education majors.

10:30-10:55

88147 | *An Econometric Study of Impact of Socio-Economic Factors on Gross Enrolment Ratio in India*

Shikhar Kumar, University of Delhi, India

Preety Sharma, University of Delhi, India

This study investigates the intricate relationship between the socio-economic factors and gross enrolment ratio of tertiary education in India, leveraging a comprehensive dataset spanning from 1975 to 2022 from the World Development Indicators. The study addresses a significant gap in the literature by employing advanced econometric techniques. The time series analysis enable a nuanced exploration of both short-term and long-term dynamics, capturing potential heterogeneity in the impact of gross enrolment ratio across different time period. The theoretical foundation is centre around indicating the expected impact of education expenditure, urbanisation, adolescents fertility, remittances and other control variable on tertiary enrolment ratio and the steps involved in the analysis are stationarity checks, vector autoregressive estimation, stability conditions, residual diagnostics etc. Results suggest that there is an interconnected relationship between gross enrolment ratio in tertiary and secondary education, urbanisation, government expenditure, adolescents fertility etc. Overall, the study contributes in rising need for higher education and skill based leaning to improve the quality of Indian education system, offering insights that hold implications for policy formulation and economic development strategies.

## Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

11:05-12:45 | Live-Stream Room 1

# Friday Online Parallel Session 2

## Design, Implementation & Assessment of Innovative Technologies in Education

### Session Chair: Nurmukhammed Yessengali

11:05-11:30

86378 | *Development of Infographics on Mental Health and Nutrition to Promote Health and Wellness for Secondary School Students*

Ailin Chen, The 28th Middle School, China

Naruemon Thepnuan, Rajamangala University of Technology, Thailand

The research objectives were to: 1) develop infographics on mental health and nutrition, 2) compare students' knowledge of infographics on mental health and nutrition, and 3) study the satisfaction of students who using infographics on mental health and nutrition. The sample of this study was 20 students in grade 8 of No. 28 Middle School in Zigong City. They were selected students convenient and appropriate from a class or group that is easily accessible and suitable for the study's objectives. The instruments consisted of infographics on mental health and nutrition, an evaluation form regarding the quality of media and contents, an achievement assessment, and a student satisfaction assessment form. Statistics used for data analysis were mean, standard deviation, and t-test for dependent samples. The results showed that: 1) the infographics on mental health and nutrition to promote health and wellness achieved quality in media at is good level with an average score of 4.43 and quality in content at is good level with an average score of 4.20, 2) the students who learned via the infographics had an average pre-test score of 38.25 points and an average and post-test score of 48.25 points, respectively, when comparing the pre-test and post-test scores, so that the post-test scores were higher than the pre-test scores with statistical significance level is .05, and 3) the students were satisfied with infographics was found to be at a highest level with the average score of 4.90.

11:30-11:55

88030 | *Study of Learning Achievement of Augmented Reality About Mathematics for Grade 2 Students at Zigong Vocational and Technical School*

Mathuros Panmuang, Rajamangala University of Technology Thanyaburi, Thailand

Lai Yuhong, Rajamangala University of Technology Thanyaburi, Thailand

Technology is evolving rapidly and is becoming more widely available these days. As a result, using it in the classroom will improve students' attention, particularly when it comes to the application of AR (Augmented Reality) technology in mathematics, which enables students to visualize concepts in 3 dimensions, making learning more engaging. Therefore, a consequence, this study used augmented reality technology to develop a geometry, algebra, calculus, and analytic geometry curriculum. Nine experts assessed the AR lesson in terms of content, media, measurement, and assessment. The AR lesson then went to the test on a sample of thirty second-graders at Zigong Vocational and Technical School in China who were enrolled in the first semester of the 2024 academic year and studying mathematics. The instruments utilized were a 50-item test and a satisfaction rating questionnaire that had undergone expert review (Index of item Objective Congruence: IOC). Before studying utilizing the AR lesson, the learners were given the exams to attempt. Additionally, a post-test was administered after the students had completed utilizing augmented reality in all their topics, and the test results were compared using a paired sample t-test. Further, after implementing an AR lesson, utilize a satisfaction questionnaire to inquire about the students. The study's findings indicate that learners have gained greater knowledge by using augmented reality lessons since their satisfaction levels are high and there is a substantial difference between their pre- and post-learning comparative scores. As a result, using AR lessons in mathematics instruction can be beneficial.

11:55-12:20

88531 | *Applying AI in the High Schools of Kazakhstan: A Strategic Approach to Enhancing Educational Outcomes*

Artur Zhussupov, Shogan High School, Kazakhstan

Nurmukhammed Yessengali, MSDC Math Learning Center, Kazakhstan

The application of Artificial Intelligence in education is transforming school education systems, providing a foundation for improving academic outcomes. This study investigates the implementation of AI in high schools across Kazakhstan, focusing on its impact on student performance, teacher workload, and overall quality of education. The research evaluates the effectiveness of a range of AI-driven educational tools, including adaptive learning platforms, automated grading systems, and AI-based tutoring applications. Quantitative data measuring changes in student performance and reductions in teacher workload was collected from a sample of 25 private and state high schools, located in major cities across Kazakhstan, where these tools had been implemented for at least a four-year period. In addition, qualitative data was gathered through surveys from a sample of 114 teachers and 308 students who were employees or enrolled in the mentioned schools. Twelve in-depth interviews with educational experts and school administrators were conducted. The methodology employed a mixed-methods approach, integrating statistical analysis of performance data with thematic analysis of survey and interview responses. This approach allowed for a comprehensive evaluation of the impact of the AI on school education. Study concludes that while AI has the potential to enhance the quality of education overall, several crucial factors should be considered. The findings of the study can be generalized and applied to improve the efficiency of educational systems.

12:20-12:45

88461 | *Perception of Pre-Service Teachers Towards Practicing Value-Based Techno-Pedagogical Content Knowledge (VTPCK Model)*

Suprita Sinha, Gautam Buddha University, India

Vinod Shanwal, National Institute of Education, India

Human values are vital to promoting education. Moral and social values like humanity, honesty, compassion, equality, and culture are important in schools. Indian culture is rich with values and traditions that have been followed since immemorial. Indians are known for peace and Vasudhaiva Kutumbakam (all people on earth are family). For years a moral decline has been observed in children which makes them diverted from the purpose of education. In 2015, the government of India adopted Agenda 2030 for sustainable development, and since the impact initiation can be observed. The human personality is incomplete without the essence of moral and social values. The sense of decision-making, code of conduct, and character-building make us unique and superior to computers and AI. The National Education Policy 2020 (India) recommends the central role of teachers in practicing and extending the legacy of Vedas (sacred texts), rich in human values to their students. For this study, an Indian adaptation and extension of the TPACK Model (2006) was redesigned as the Value-based Techno-PedagogicalContentKnowledge Model. The VTPCK equips teachers with technology, pedagogical skills, content knowledge, and values to formulate a productive society. A quasi-experimental study was conducted with blended mode teaching for 6 weeks to randomly chosen 40 pre-service schoolteachers in Delhi, India based on a self-made VTPCK Tool, teaching plans, observation, achievement tests, etc. The appropriate statistical analysis (Mean, SD, t-test, ANOVA) has been done. The effectiveness of VTPCK skills was highly significant and may be practiced as a good method for teacher training.



# 11:05-12:45 | Live-Stream Room 2

## Friday Online Parallel Session 2

### Learning & Career Motivations in Higher Education

#### Session Chair: Naomi Tsunematsu

**11:05-11:30**

85397 | *Envisioning Possible Post-PhD Careers Outside Academia: An Exploratory Study of Two Chinese Doctoral Graduates' Differentiated Experiences*

Sangge Qi, University of Turku, Finland

Amid heightened positional competition in the graduate labor market, doctoral graduates' progression into non-academic employment has become an emerging focus of concern. Drawing on the concept of possible selves, this exploratory study examines how doctoral graduates envisage and plan for their post-graduation careers outside academia in the context of China. The study presents the narratives of two PhD holders from the field of Social Sciences that graduated from universities of varying reputational statuses, both of whom had made the decision to enter non-academic employment during their doctoral journeys. The analysis demonstrates marked differences in the scope of graduates' envisioned future careers and their perceived abilities to realize them along the lines of privilege and disadvantage associated with institutional hierarchy, which in turn shaped their strategies of responding to the intensified job competition. In doing so, the paper sheds light on both the material and affective dimensions involved in graduates' construction and negotiation of envisioned future careers, and provide insights into how this is shaped by institutional hierarchy that enables or constrains the ways post-PhD career possibilities can be imagined. With that, this paper seeks to contribute to the broader discourse on doctoral employment and offers implications relating to post-PhD career planning.

**11:30-11:55**

87434 | *Individuals' Motivations for Selecting a Liberal Arts Major: Evidence from a Transnational University in China*

Shan He, Ningxia University, China

In the Chinese context, there is a tendency to divide college majors into two broad categories: STEM (li ke) - or those with a direct vocational implication in their names, such as Engineering and Computer Science - and Liberal Arts (wen ke), such as certain disciplines in the Arts, Humanities and many of the Social Sciences, which are seen as being less directly linked with a specific job position. In this paper, the rationales for individuals to have selected a liberal arts major in a transnational university are unraveled. This study strives to capture the mental journey of these young adults before their embarkation on their educational experiences, namely how they mapped their anticipated future blueprints into immediate major choices within limited time period. Semi-structured, in-depth interviews with students and graduates who enrolled in two non-applied, non-vocational first degree courses (Communications and International Relations) in a transnational campus were conducted. Empirical data collection and analyses suggest that: (1) Students' major decisions are often entwined with their choices of the university, especially the Sino-foreign institutional features; (2) The majority of students were sifted out from their initially desired majors due to their college entrance examination (Gaokao) scores; (3) Some students demonstrated a rational understanding of their strengths, preferences and career plans, while others admitted their decision-making under ignorance; (4) A small group of students are intrinsically motivated by a liberal arts field as they hold distinct perceptions and expectations, which are in line with the ideas of a liberal arts education.

**11:55-12:20**

85523 | *Asian Exchange Students' Aspirations and Concerns Before Departure for Study Abroad in Japan*

Naomi Tsunematsu, Hiroshima University, Japan

This qualitative research investigated Asian exchange students' voices on their purposes, aspirations, and concerns before their departure for study abroad in Japan. Research on international exchange students' study abroad experiences in non-English speaking countries such as Japan has been limited, and more qualitative research is needed, focusing on culturally specific issues. The need of longitudinal study on students' study abroad experiences has been raised, including pre-departure time. This research fills the gap by investigating Asian students' voices before departing for Japan, as part of the longitudinal study of multinational students' study abroad experiences, from pre-departure time through reentry. The researcher conducted semi-structured, in-depth interviews. Interviews revealed that students' purposes were to acquire Japanese language proficiency, meet local students and international students, and explore possibility of attending graduate school in Japan or career related to Japan. Students' academic concerns were different teaching styles, class comprehension in Japanese, competition with local students, and taking classes with international students in English. Students were also concerned with their lack of cultural knowledge about Japan and possible impoliteness towards professors, and their linguistic competence of Japanese and English to develop friendship with local students and Western students. Some students developed precognition about Japanese people's attitudes towards foreigners and impossibility of being employed in Japan. Most of students had only vague ideas about host culture and university. Program and culture specific pre-departure guidance by the university about Japanese society, host university, and its support system will better prepare students interculturally and maximize their study abroad experiences.

**12:55-13:20**

85408 | *Charting Sustainable Pathways: Understanding Private and Public State Universities' Role in Generation Z's Study Abroad Choices Through MCDA and SEM-ANN*

Charmine Sheena Saflor, De La Salle University, Philippines

Klint Allen Mariñas, Mapua University, Philippines

Jazel Monterola, Occidental Mindoro State College, Philippines

Reina Krizzia Pranada, Occidental Mindoro State College, Philippines

Macrein Acosta, Occidental Mindoro State College, Philippines

Arnelyn Labao, Rizal National High School, Philippines

This study examines how sustainability influences Generation Z's choices in study abroad programs, including Student Exchange, Work and Study, and Language Immersion Programs. Using Multi-Criteria Decision Analysis (MCDA) and the Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS), researchers evaluated factors like program duration, specialization, cost, financial aid, research opportunities, and quality. The Theory of Planned Behavior (TPB) was applied to understand how these sustainability factors affect decisions. Structural Equation Modeling (SEM) revealed relationships among ten variables, including Perceived Benefits (PB), Perceived Cost (PC), Perceived Risk (PR), Perceived Trust (PT), Attitude (A), Subjective Norms (SN), Perceived Behavioral Control (PBC), Awareness of Service (AOS), Intention (IN), and Behavior (B). An artificial neural network (ANN) enhanced the accuracy of identifying key sustainability factors. Data from 320 respondents via 60 surveys indicated that sustainability significantly influences study abroad decisions, with Perceived Behavioral Control (PBC) having the strongest impact, followed by intention and attitude. Perceived Benefits (PB), Perceived Risk (PR), Perceived Trust (PT), and Awareness of Service (AOS) were crucial in shaping intentions. Subjective Norms (SN) indirectly influenced decisions. Student Exchange Programs were the preferred choice due to perceived sustainability benefits. This study provides insights for educational institutions and policymakers better to align programs with Gen Z's sustainability goals.

11:05-12:45 | Live-Stream Room 3

# Friday Online Parallel Session 2

## Special Topics in Education

### Session Chair: Camey L. Andersen

11:05-11:30

82421 | *Guide on the Side: Mentoring Practices of High School Research Advisers*  
Ehrlrich Ray Magday, Central Mindanao University, Philippines

This qualitative study aimed to describe the mentoring practices among high school research advisers in two public schools in Bukidnon, Philippines. A total of seven high school research advisers were interviewed and the data collected were analyzed through Colaizzi's method. Four themes emerged namely: Building research skills among students, Providing opportunities to showcase research outputs, Mentoring as Guide on the Side and Professional Enhancement. These practices were found to be effective in guiding the students in the conduct and successfully finishing their research investigations. As such, there is a need to strengthen mentoring practices in schools to continuously develop teachers who are capable of becoming research teachers and advisers, provide avenues for students to present their research findings, and support training for advisers to equip themselves with the trends in research.

11:30-11:55

84031 | *Principles of Effective Advisor Mentoring*  
Camey L. Andersen, Brigham Young University, United States  
Carolyn Andrews, Brigham Young University, United States

The choice of a graduate advisor is a far-reaching academic decision for students. This presentation provides ideas for students and for faculty seeking to be effective mentors. Learn from recommendations for best practices for advisors and choosing an advisor based on a research survey of current and recently graduated Ph.D. and master's students' experiences. These include: 1) Academic support, 2) Emotional Support, 3) Accountability, 4) Advisors as Informational Sources, and 5) Advising for the Future/Networking. This study also showed that only about half of graduate students felt they received emotional support from an advisor (49%), but ranked emotional support as the most important quality in an advisor (28%). The survey was distributed through higher education listservs and was shared on social media. The researchers individually coded the five qualitative survey questions and discussed discrepancies until reaching consensus on coding schemes. Then a thematic analysis was conducted to identify key themes. In 65 responses received, respondents overwhelmingly were in Instructional Design/Technology fields (83%), with the remaining 17% in "Other"/Learning Science fields. Most survey respondents were current graduate students (63%), while 37% had graduated; 72% were female, 28% were male, with widespread age-range for participants. The survey required participants to be current students or graduated in the last 5 years. The graduate student who chooses their advisor with these recommendations can benefit from a mentoring experience that positively impacts their academic degree and the scholar they become. Faculty who adopt these key advisor qualities can be better prepared to successfully mentor students on their academic journey.

11:55-12:20

87761 | *Integrating Sustainable Development in a Philosophy Class: A Case Study of Ethics Courses at National University Clark, Philippines*  
John Edward Alfonso, National University Philippines, Philippines

Ethics courses in Philippine higher education aim to train students to analyze cases from philosophical and ethical perspectives. By internalizing multiple concepts in ethics and then processing and relating them to actual occurrences in society, students are given opportunities to assess whether the outputs and innovations they develop observe certain ethical principles. This further ensures that their outputs are not only humane but also sustainable. This paper investigates how an ethics course, inherently philosophical, can produce student outputs that promote sustainable development. It presents the case of how ethics courses are delivered at National University Clark, beginning with the incorporation of the Philippine Commission on Higher Education's most recent course description for Ethics into the Ethics Course Syllabus. The paper then looks into how the discussions and student activities are facilitated to produce their final outputs, anchored on an existing ethical issue in society related to a specific sustainable development goal, and how the outputs contribute to the community's sustainable development. The outputs are then examined to determine their degree of relevance and impact on the sustainable development of their chosen community. By ensuring that their activities have actual relevance to society, the course fosters among the students a deeper understanding of the practical applications of the various ethical frameworks, which no longer remain as a theoretical concept but rather as an integral part of the thought process of being a responsible member of the community.

# 11:05-12:45 | Live-Stream Room 4

## Friday Online Parallel Session 2

### Blended & Online Learning

#### Session Chair: Chooi Yeng Lee

**11:05-11:30**

83731 | *Information and Communication Technology Self-Efficacy on Educators' Technology Acceptance in Blended Learning Process*

Clarissa Adeline, Pelita Harapan University, Indonesia

Benedictus Arnold Simangunsong, Pelita Harapan University, Indonesia

In this era of digital transformation, implementing technology in education is an absolute must. Not only that, the use of ICT technology also brings many benefits to the development of the quality of education in Indonesia. Even so, digital transformation in the education sector in Indonesia can be said to be quite late. In addition, the Covid-19 pandemic has forced education stakeholders to adapt to the new learning system. However, on the other hand, this pandemic also opens up new opportunities to improve digital transformation and the quality of learning. And to achieve that, we first need to find out whether technology can be appropriately adopted, especially by educators as the front line of digital transformation. In other words, educators' readiness and acceptance of technology are the main prerequisites for maximum technology implementation. Therefore, this study aims to see the effect of the educators' ICT Self-Efficacy on their technology acceptance in the blended learning process. This study uses a quantitative approach with an explanatory survey method. Primary data was obtained through a questionnaire using non-probability techniques to 70 respondents who are lecturers at universities in Indonesia. The results showed an influence of ICT self-efficacy on technology acceptance through the mediation of Perceived Ease of Use, Perceived Usefulness, and Behavior Intention. This study also found a direct influence of ICT Self-Efficacy on Perceived Ease of Use and Perceived Usefulness.

**11:30-11:55**

86039 | *Leveraging AI for MOOC Course Preparation: a Reflection from Online Instructors*

Yuk Ting Hester Chow, The Hong Kong Polytechnic University, Hong Kong

Massive Open Online Courses (MOOCs) have entered their second decades of existence and continued to evolve. However, concerns related to their cost, quality assurance, and the problem of low participation rate still persist. While Artificial Intelligence (AI) is widely recognised as a powerful tool for enhancing productivity and even completing tasks that require human intelligence traditionally, the current discussion regarding the potential use of AI in online courses preparation remains fragmented and has yet to be explored. This paper examines the potential of adopting multiple AI tools inspired by the "AI family tree" model in the delivery of MOOC videos. Based on our experience in developing a small-scale private online course, we critically assessed the potential of technology based on different branches of the AI family tree. Our experiences reveal that the ever-evolving speech and natural language processing tools could reduce the time spent in preparing MOOC videos, while new generative text-to-image tools could address the cost concerns from using licensed materials. Meanwhile, an AI-enabled Avatar could encourage instructor's participation in online course development. Besides, this paper also discusses the potential and limitations of using other AI tools, such as machine learning and machine vision, to enhance instructor support and identify non-participative students. Our findings suggest a blended approach, leveraging multiple AI tools in establishing and running engaging MOOC courses, and provide practical insights in addressing cost and time constraints.

**11:55-12:20**

88150 | *Comparing Online Learning Engagement Across Cultural Backgrounds: A Study of Students at Two International Campuses Sharing the Same Curriculum*

Chooi Yeng Lee, Monash University, Malaysia

Suzanne Caliph, Monash University, Australia

The impact of cultural background on pharmacy students' engagement with online learning activities during remote learning and in the post-pandemic era remains unclear. In this study, we explored whether cultural differences affected students' engagement with online activities designed for active learning and skill development. We conducted a retrospective analysis of learning management system (LMS) engagement data for second-year pharmacy students at Monash University's Malaysia (MA) and Australia (Parkville PA) campuses. The study examined the LMS data from 2,810 students enrolled across eight semesters. The results from various student cohorts and different online learning activities such as readings, video clips, workshop scenarios, self-test quizzes, and preparatory materials were statistically compared using SigmaPlot® software. In the first year of pandemic remote learning, students at the PA campus showed significantly lower engagement with online resources compared to students at the MA campus. In PA however, international students indicated they were more engaged and satisfied with remote online learning resources than local students. The cultural emphasis on academic achievement, adherence to societal norms, and fulfilling responsibilities as signs of respect and commitment are likely to contribute to higher motivation and engagement with learning resources among these students. Online resources with multimodal approach that combine readings with pictures, videos and self-test quizzes enhance engagement in both campuses, compared with pre-recorded lectures or workbooks alone. Educational institutions should use multimodal online resources and tailor engagement strategies to align with students' cultural values and circumstances to enhance engagement.

# 11:05-12:45 | Live-Stream Room 5

## Friday Online Parallel Session 2

### Language Learning

#### Session Chair: Petra Boumova

11:05-11:30

86790 | *Effects of Differential Anxiety on Foreign Language Motivation and Perceived English Competence of High School Students in Northern Taiwan*  
Chengwei Jhang, Ming Chuan University, Taiwan

The purpose of this study is to discover the potential effects differential anxiety has on foreign language motivation and perceived English competence of high school students in northern Taiwan. The study will attempt to answer if there are any positive benefits in the performance of students who experience high or mild anxiety levels, and how it affects the student's motivation and perceived English competence in foreign language classes. This study used quantitative analysis of questionnaires distributed to local high schools, the questionnaire contains questions on how to measure the student's anxiety, motivation, and perceived English competence, in a foreign language classroom. The findings of this study suggest that there are a slight boost in performance when a learner experiences mild levels of anxiety while seeing no increase in high levels of anxiety, as a result, differential anxiety does indeed have effects on a student's motivation, and perceived English competence, in a foreign language classroom. This study determines that there is a need to introduce some amount of anxiety in an educator's teaching strategy to motivate students to increase their performance, while not raising the anxiety too high, so it will not achieve an opposite effect on the students.

11:30-11:55

88179 | *Enhancing English Language Proficiency for Primary School Students Through the Implementation of Online Interactive Multimedia Learning*  
Piyanan Pannim Vipahasna, Rajamangala University of Technology Thanyaburi, Thailand  
BoMing Yang, Rajamangala University of Technology Thanyaburi, Thailand

This study investigates the use of online interactive multimedia learning to enhance basic English skills (listening, speaking, reading, and writing) among primary school students in China. Moving beyond traditional classroom methods and textbook content, the study aims to develop a comprehensive approach to improving students' foundational English abilities. The study has two main objectives include 1) to compare the pre-test and post-test results, analyzing whether there is a significant difference in English proficiency when using online interactive multimedia learning 2) to assess students' satisfaction with learning English through this method. The research was conducted with 15 primary school students in China, aged 8 to 10 years, in grades 3 and 4. These students were selected using a simple random sampling technique, ensuring no significant difference in their initial English proficiency. The findings reveal: 1) the average post-test scores were significantly higher than the pre-test scores, indicating a positive impact on students' English proficiency ( $p < .05$ ), 2) online interactive multimedia learning was found to enhance teaching effectiveness, boost students' interest and enthusiasm, and foster greater interaction and communication among students and between students and teachers. This research underscores the potential of online interactive multimedia as a valuable tool in modernizing English language education, making it more engaging and effective for young learners.

11:55-12:20

85038 | *The Use of Career Awareness Comic Books to Enhance English Language Teaching for Primary School Students*  
Yunchun Li, Rajamangala University of Technology Thanyaburi, Thailand

The research aimed to 1) Identify about the quality validity of the career awareness comic book 2) Identify about the learning achievement scores after using the career awareness comic book. 3) Identify about the rate of effectiveness after using the career awareness comic book. The population consisted of 76 of the 5th grade students of Fu quan Primary School. The statistics used to analyze and interpret the data included mean (X), standard deviation (S.D), dependent t-test, and effectiveness index. The research benefits are 1) Fu quan Primary School have new teaching methods of career awareness 2) Fu quan Primary School can be improve of English learning and cultivating students' vocational awareness 3) Fu quan Primary School have the standard instrument Career Awareness comic book for student's occupation consciousness training. 4) Fu quan Primary School have the standard instrument to Cultivates the primary students for career guide.

12:20-12:45

88565 | *Exploring Language Development Applications for Preschool Children: A Comparative Study of 16 Solutions for Czech Preschools*  
Petra Boumová, University of Hradec Králové, Czech Republic  
Jana Maria Havigerová, University of Hradec Králové, Czech Republic  
Jana Stránská, University of Hradec Králové, Czech Republic  
Lenka Novotná, University of Hradec Králové, Czech Republic

This study provides insight into the use of educational technologies in early childhood education following the implementation of Strategic Plan for Digitalization in Czech Republic 2030. The study offers a comparative analysis of 16 educational applications for preschool children used in Czech preschools. The aim was to identify and evaluate the key features with an emphasis on language development using Rosell-Aguilars' (2017) primary categories framework (C1: Technology, C2: User Experience, C3: Pedagogy, C4: Language learning), finding the best possible solutions for language development of preschool children using digital technologies. Research sample was identified by 80 preschool teachers from Czech Republic using an on-line questionnaire. For the purpose of the data analysis coding scheme was developed based on criteria from categories C1 - C4. Data were collected using direct examination of game elements, tasks and activities assigning value points 0 - 3 for each criteria by researchers. Educational applications varied highly in individual characteristics, such as overall design, visuals and quality of content in connection to language learning. The results show that applications with high scores in Technology (C1) and User experience (C2) tend to receive lower ratings in educational context (C3, C4), focusing more on the child's experience while lowering the educational context and vice versa. We discuss the implications of these current application design tendencies with the aim of encouraging preschool teachers to find high quality educational content while complying with the need for suitable design for young children.



## Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

# 12:55-14:35 | Live-Stream Room 1

## Friday Online Parallel Session 3

### Innovative Practices & Policies in Higher Education

#### Session Chair: Mikako Nobuhara

**12:55-13:20**

88621 | *The Impact of Class Scheduling on Academic Performance: A Study of First-Year Computer Engineering Students at Cebu Institute of Technology*

Jundith Alterado, Cebu Institute of Technology - University, Philippines

Johnalyn Figueras, Cebu Institute of Technology - University, Philippines

This study examines the significant influence of class scheduling on the academic performance of first-year engineering students at Cebu Institute of Technology University (CIT-U). Using data from grades and attendance records of 60 students enrolled in the computer programming course, this paper examines the effect of class schedule on academic performance among students in morning classes that start at 7:30 AM until 10:30 AM and afternoon classes that start from 12:00 PM to 3:00 PM. A between-subject research design using a two-sample, one-tailed t-test was applied on the dataset to achieve the research objectives. The result reveals that students in afternoon classes achieve significantly higher grades than the morning classes. Additionally, a moderate correlation was found between attendance and grades, indicating that regular attendance positively influences academic performance. These findings highlight the critical role of class scheduling in enhancing students' academic success and suggest that optimizing class schedules could improve both well-being and performance at Cebu Institute of Technology—University.

**13:20-13:45**

88530 | *Development of Project-based Learning Integrated with XR Technology for Landscape Architecture Students*

Thanin Ratanaolarn, King Mongkut's Institute of Technology, Thailand

Sirirat Petsangsri, King Mongkut's Institute of Tehnology Ladkrabang, Thailand

Thanin Ratanaolarn, King Mongkut's Institute of Tehnology Ladkrabang, Thailand

Jie Guo, King Mongkut's Institute of Tehnology Ladkrabang, Thailand

This study examines the integration of extended reality (XR) technology into project-based learning (PJBL) to develop an innovative and effective teaching model for the landscape architecture students. Through augmented reality (AR) and virtual reality (VR) tools, extended reality (XR) technology is applied to all stages of project-based learning (PJBL) to help students analyze design problems, build virtual models, and conduct immersive Explore and show. Five experts in the related fields and 30 students were invited to evaluate this study to assess the feasibility of the proposed PJBL-XR model. They assessed the model using a structured questionnaire and processed the data through mean, standard deviation, and thematic analysis. The results of the experts' assessment were Mean = 4.5 - 5.0 (SD = 0.00-0.71), whereas student assessment results were Mean = 4.2-4.9 (SD = 0.32-0.71). Then, the thematic analysis results revealed that PJBL-XR learning activity is highly beneficial for engaging students, promoting active learning, and fostering creativity. The results showed that students had a positive attitude towards the course design and the developed model, which showed that integrating XR technology into PJBL could create a rational and effective teaching model for landscape architecture students. Enhancement on several aspects of the learning activity is needed for a better implementation, particularly in ensuring personalized learning experiences and maintaining a strong focus on educational outcomes.

**13:45-14:10**

85040 | *The Impact of Information Charts on Fire Evacuation of Chinese Students: A Case Study of Sichuan University of Light Industry*

Xia Zhang, Rajamangala University of Technology Thanyaburi, Thailand

With the rapid progress of technology, ensuring the safety of campus fire evacuation has become a focus of attention. This empirical study, conducted at the Sichuan University of Light Industry and Chemical Technology, involved fire evacuation tests and student feedback surveys. The purpose of this research aims to: 1) Explore the quality of Information graphics on fire evacuation 2) Explore of Training effectiveness of achievement scores after using the Information graphics of dormitory students 3) Explore the feedback of using the Information graphics. The population in this study is dormitory students from Sichuan University of Light Industry and Chemical Technology (50 people). Research instruments included 1) Infographics on fire evacuation 2) Achievement test papers 3) After-class interviews form 4) The students' feedback on using the Information graphics questionnaire. The statistics to use in this research included: 1) Mean (X), 2) Standard Deviation (S.D), 3) Effectiveness index, and 4) Content analysis technique. Expected research: 1) The sample will have gained knowledge from an information chart on fire evacuation. 2) The sample will get higher scores after using information charts on fire evacuation. 3) Expanding ways to cultivate student safety awareness 4) Provide a reference for future emergency management.

**14:10-14:35**

88648 | *Case Study on Use of Back to the Future in English Instructions for Engineering Students*

Mikako Nobuhara, Nagaoka University of Technology, Japan

Takashi Okoda, Tokyo Metropolitan College of Industrial Technology, Japan

This study investigates the educational effectiveness of integrating the American film Back to the Future, directed by Robert Zemeckis, into English language instructions for engineering students in Japan. The participants included students from four classes at a Japanese college, focused on training future engineers, and a university class of students specializing in technical sciences. Three surveys were administered using Google Forms: before viewing the film, after watching the first half of the film, and after the film viewing was complete. The surveys assessed the learning outcomes of students, self-evaluation of communication skills, and their recognition of English vocabulary and expressions encountered while viewing the film. The findings suggest that students viewed the film as a valuable resource to improve everyday conversational skills, expand vocabulary, and understand cultural and social contexts, as well as to assimilate non-verbal communication cues. However, they exhibited lower confidence in their English composition abilities and interpersonal communication as a result of the film. The post-viewing analysis showed that although students could conduct a thorough engineering analysis of the film, their comprehension of the English vocabulary and expressions remained at a level similar to that of Japanese lower secondary school students. The study concludes that the primary insights gained from viewing the film were engineering-focused, accompanied by limited linguistic advancement. To enhance the educational outcomes with regard to the use of films in engineering education, this study recommends the incorporation of pre-viewing activities that are focused on conversational expressions and vocabulary, in addition to engineering concepts.

# 12:55-14:35 | Live-Stream Room 2

## Friday Online Parallel Session 3

### Teaching & Professional Development

#### Session Chair: Shonn Cheng

12:55-13:20

82341 | *A Case Study on the Reasons for Teacher Turnover Under the Professional Capital Theory*  
Evan Jonas Wong, The Chinese University of Hong Kong, Hong Kong

The aim of this study is to investigate the high turnover rate at primary schools in Hong Kong, especially among those newly recruited teachers with less than five years of experience. Professional Capital Theory has been adopted in the study as the research framework, which emphasizes the importance of professional development and learning opportunities for teachers. A quantitative approach has been adopted, and data was collected through a survey of 20 newly recruited teachers, accounting for 30% in the school. The findings revealed that a significant number of teachers intend to leave their schools due to a lack of opportunities to participate in school administrative decisions, inadequate professionalism in the teaching team, and insufficient social capital that hinders their decision-making ability. The results also indicated that teacher turnover rate is closely related to professional development opportunities and a supportive work environment. Therefore, addressing these factors is crucial for improving teacher retention rate and the quality of education in Hong Kong. This study highlights the importance of investing in teachers' human capital through education and professional training, cultivating social capital through collaboration and peer relationships, and decision capital to enable effective decision-making.

13:20-13:45

88521 | *Empowering Teachers: Leveraging AI Tools to Alleviate Workload and Enhance Educational Practices*  
Sven Kottmann, Stuttgart Media University, Germany  
Lena Dillmann, Stuttgart Media University, Germany  
Jürgen Seitz, Stuttgart Media University, Germany

The increasing workload on teachers in Germany has highlighted the potential for AI tools to provide much-needed support within the educational system. An in-depth analysis of 9 teachers' burdens and their corresponding needs revealed that the most significant challenges lie in grade and exam management, correction tasks, school organization, interactions with colleagues and parents, and the preparation of teaching materials. Despite the recognized need, no teachers reported currently using AI tools for correction, indicating a significant opportunity to reduce workload through targeted investments and overcoming implementation barriers. Additional potential for AI applications was identified in school organization and related areas, such as class scheduling, classroom management, and administrative tasks, which could benefit from automation. The study also explored existing AI tools in educational practice, noting that while their use is currently limited, tools like "ChatGPT" for generating worksheets, "Fiete" for personalized feedback in language classes, and "to teach" for lesson planning are already making a difference. Furthermore, the digital platform "forbizz" was highlighted as a resource for teachers seeking AI-assisted tools, educational materials, and professional development. For AI tools to effectively alleviate teachers' workload, several prerequisites must be met. The most critical need is for comprehensive professional development, ideally mandatory and with direct application to classroom practice. Teachers also emphasized the importance of extending this training to students through computer science education and informing parents to prevent potential conflicts. Finally, time for teachers to familiarize themselves with these tools, along with financial support for licenses and subscriptions, is essential.

13:45-14:10

88574 | *Study on the TPACK (Technological Pedagogical Content Knowledge) Development of Music Teachers in Rural China*  
Jiaen Zhang, Guangdong University of Education, China  
Kaijie Hu, Guangdong Vocational College of Arts, China

The integration of educational technology is often viewed as a significant approach to potentially enhance educational outcomes and contribute to the goal of educational equity. However, there is still a scarcity of literature on how rural music teachers in China can improve their teaching capabilities integrating educational technology. Therefore, this study, based on the TPACK framework, conducted a two-year survey of over 300 primary and junior high school music teachers in five provinces of China using questionnaires and semi-structured interviews. The findings reveal that: the TPACK capabilities of rural primary and junior high school music teachers in China are generally insufficient, with significant differences in the development of various factors; participation in teacher mutual aid communities has a positive effect on the development of technology-related factors; and, rural music teachers with higher initial TPACK capabilities experience a decrease in the efficiency of TPACK capability development after a period, in the absence of opportunities for music practice participation and personal teaching research achievements display. Based on the data analysis and discussion of the causes, the following strategies are recommended to enhance the TPACK capabilities of rural music teachers: 1. Implement TPACK framework-based blended in-service training; 2. Establish online and regional professional communities for rural music teachers; 3. Provide rural music teachers with comprehensive platforms for music and music education achievements showcase. This study also aims to provide a reference for the development strategies of teacher capabilities in other regions with insufficient educational resources.

14:10-14:35

88551 | *Studying the Process of Teacher Technology Integration Using Microanalytic Methods*  
Shonn Cheng, National Taipei University of Technology, Taiwan  
Nurul Annisa, National Taipei University of Technology, Taiwan  
Sung-Chan Ku, National Taipei University of Technology, Taiwan  
Jenny Chien, Independent Researcher, Taiwan

Over the past decade, considerable research has focused on understanding teachers' intentions to adopt technology in classrooms. Despite the importance of this line of inquiry, our knowledge of the critical processes involved in effectively integrating technology into teaching remains limited. To address this gap, the present study examines the technology integration process of an expert teacher through microanalytic methods. The expert teacher, who has been teaching English at a technological and vocational university for six years, has received multiple grants and awards for excellence in technology integration. This teacher serves as a critical case for exploring effective technology integration in classrooms. By employing microanalytic methods and gathering multiple data sources, the present study uncovers the complex and dynamic processes involved in an AI-enhanced English class before, during, and after instruction. Before instruction, critical processes include: (a) activation of Technological Pedagogical and Content Knowledge (TPACK) and teacher beliefs; (b) planning for content, pedagogy, technology, and time; (c) goal setting; (d) behavioral and mental rehearsal. During instruction, the teacher participates in (a) rapport formation; (b) preparation for technology; (c) task orchestration; (d) regulation of student cognition, motivation/affect, and behavior. After class, some of the exemplary processes encompass: (a) self-evaluation; (b) causal attribution; (c) self-satisfaction/affect; (d) adaptive inferences. These findings provide a comprehensive understanding of the stages and phases of the process of technology integration and offer valuable guidance for educators looking to enhance their use of technology in classrooms.

12:55-14:35 | Live-Stream Room 3

## Friday Online Parallel Session 3

### Policy & Practice in Literacy & Language Development

#### Session Chair: Doaa Hamam

12:30-12:55

85545 | *Unveiling the Impact of Teacher Evaluation Tools on Sustaining Monolingual Teaching Practices*  
Kim De Castro, Philippine Science High School - Main Campus, Philippines

This study investigates the influence of teacher evaluation tools on the perpetuation of monolingual teaching practices in select private schools in the capital region of the Philippines. In a country with 175 indigenous languages (Ethnologue, 2022), promoting inclusive educational environments that celebrate multilingualism is paramount. However, this research reveals that despite the growing recognition of multilingual teaching practices as marked by the implementation of the Mother Tongue Based-Multilingual Education (MTB-MLE) in the early grades, existing teacher evaluation frameworks contribute to the persistence of monolingualism in the classroom. The study used an interpretative-qualitative case study approach (Cresswell 2007) encompassing interviews with teachers and content analysis of teacher evaluation tools and manuals. Data were collected from three high school teachers who teach in three different reputable private schools in Metro Manila. The findings of the study indicate that the performance indicators associated with the language of instruction within teacher evaluation tools exhibit a notable degree of vagueness, and school supervisors inadvertently capitalize on this vagueness to sustain monolingual norms. Furthermore, teachers' apprehension regarding evaluation outcomes and job security often results in the preservation of conventional monolingual approaches. The study highlights several key factors contributing to the perpetuation of monolingualism, including the absence of explicit criteria for evaluating multilingual pedagogical skills and lack of professional development opportunities for both teachers and supervisors to nurture inclusive multilingual practices.

12:55-13:20

85416 | *Research on the Key Success Factors of Literacy-Oriented Courses Using DANP Method*  
Chia Wei Wang, National Taiwan Normal University, Taiwan

In line with modern international education trends, Taiwan's Ministry of Education has promoted a new curriculum that emphasizes literacy-oriented teaching that integrates knowledge, abilities, and attitudes. In order to explore the many difficulties and challenges facing the promotion of literacy-oriented teaching in Taiwan's education field over the past four years since the new curriculum was launched, this study compiled a prototype framework of key successes through literature. After revising the framework through the Delphi method, 8 experts conducted a weighted selection of influence among factors, combined with the Decision Making Laboratory Analysis Method (DEMATEL) and the Analytical Network Hierarchy Method (ANP), to study the key aspects and criteria for the success of literacy teaching, with a view to serving as a cross-domain technology-based high school literacy in the future. References and suggestions for curriculum development.

13:20-13:45

83685 | *The Evaluation of Grade IX English Textbooks Used by Indonesian Public Schools in Curriculum 2013*  
Fransiska Anggun Arumsari, Indian Institute of Technology Kanpur, India  
N.P. Sudharshana, Indian Institute of Technology Kanpur, India

In 2013, the government of Indonesia proposed a new curriculum for all subjects, including English. Through this new curriculum, the curriculum designers want to encourage communication patterns and interaction in the classroom that can stimulate learners to be confident, tolerant, critical, appreciative and creative in both spoken and written English (Sulistiyani, 2017). Curriculum 2013 posits language as a communicative tool, encompassing both written and oral modalities. Consequently, pedagogical practices are expected to offer ample opportunities for learners to utilize English for communication purposes (Permendikbud, 2013). The curriculum reform mandates essential resources to facilitate goal attainment, with textbooks being a central provision by the government. Recognizing the pivotal role of textbooks in this framework, the proposed research seeks to evaluate their adherence to quality standards and effectiveness in fulfilling the objectives outlined in Curriculum 2013. The course books were assessed using Littlejohn's (1998) checklist, focusing on elements like design, layout, subdivision, and units. Internal evaluation employed Daoud and Celce-Murcia's (1979) checklist, with Levin's (1981) typology utilized to determine illustration functions. The evaluation revealed notable shortcomings in the textbooks, including distracting illustrations, inadequate vocabulary support, absence of communicative tasks, lengthy instructions, and scarcity of authentic materials. The paper also offers suggestions to address these deficiencies.

13:45-14:10

82081 | *Leading Change in TESOL: Exploring Transformational Leadership in the Context of Higher Education*  
Doaa Hamam, Higher Colleges of Technology, United Arab Emirates

The presentation presents the findings of a study that proposes exploring the application of Transformational Leadership within the context of Teaching English to Speakers of Other Languages (TESOL) in higher education. No one can deny that there is a growing need for transformative leadership approaches that can effectively navigate the rapid changes in the field of higher education. Transformational leadership, with its emphasis on inspiration, vision, and empowerment, holds significant promise in fostering positive change and innovation within TESOL programs and courses. This study aims to investigate the ways in which transformational leadership practices can be implemented by TESOL educators and administrators to enhance teaching and learning outcomes, promote faculty and staff development, and cultivate a culture of innovation in higher education settings. Based on the theoretical frameworks of transformational leadership and empirical evidence from relevant literature, this research seeks to provide insights into the specific leadership behaviours and successful strategies that lead to transformative change in TESOL education. The study targeted nine TESOL leaders (n=9) in several higher education institutions in the Gulf region. The data was collected through semi-structured interviews. The main themes that emerged from the analysed data revealed that inspiring vision, shared purpose, empowering others and promoting innovation and collaboration were among these leaders' most important successful strategies in their workplaces. The finding's practical implications in relation to policy, as well as teaching and learning, were discussed, and future research was suggested.



# 12:55-14:35 | Live-Stream Room 4

## Friday Online Parallel Session 3

### Emerging & Critical Issues in Education

#### Session Chair: C K Peter Chuah

12:55-13:20

85950 | *Channeling Deaf Abilities: a Compass to a Brighter Future*  
Ferdinand Tolentino, Miriam College, Philippines

The immediate objective of this Capstone Project is to determine the talents, strengths, interests, and aspirations of the subject being a deaf adult to channel them in choosing an appropriate career path or functional life path, as the subject is transitioning from school to work environment. Primarily, this academic endeavor desires to find out the areas that the subject needs to improve on, specifically in the functional communication skills and independent living skills domains, as the subject also has mobility impairment due to weak bone functions resulting in being dependent on family members. The overall result of the assessment on the subject yields that despite the disabilities and difficulties, the subject has a positive attitude and possesses talents and strengths that are essential qualities in landing for a desired career. This paper requires rigid and intensive data collection of the family background, academic standing, and demographic profile of the subject through parent and teacher interviews, observations, checklists, and other assessment tools and measures. Moreover, this paper serves as a compass that directs and helps navigate the subject and the possible future learners with special needs to have a brighter life that is functional, transformative, thriving, and meaningful. The entire process of this project allowed the examiner to discover that special needs education requires individualization of instruction, focus of talents and strengths, and constant monitoring of the learners to be able to see significant improvement and be able to guide them to be independent and functional citizens of the society.

13:20-13:45

81343 | *Teachers' Perceptions of Learners' Human Rights: Implications on Classroom Management in South African Local Public Schools*  
Ernest Mpindo, Central University of Technology, South Africa  
Constance Mphojane, Central University of Technology, South Africa  
Awelani Rambuda, Central University of Technology, South Africa

This interpretivist research paper discusses the teachers' perceptions of learners' human rights and their implications on classroom management. Since the abolishment of corporal punishment, most teachers believe that learners' human rights are being given the most attention and due to this, classrooms are places of violence and teachers' classroom management strategies are ineffective. This paper uses the lens of Critical Emancipatory Research (CER), which has a mission to critique and challenge, reform, and empower; it promotes social fairness and strengthens democratic deals. This qualitative paper conveniently held focus group interviews with 15 teachers in public secondary schools in the Lejweleputswa District. This paper answers two questions: What are teachers' perceptions of learners' human rights in school context, and what implications do they have on classroom management? The data was analysed thematically. The findings demonstrate that teachers lack knowledge on human rights education and see learners' human rights in school context as a threat to their right to discipline learners in classrooms. In light of the findings, this study suggests that teachers need urgent and continuous training on human rights education.

13:45-14:10

88713 | *The Impact of Parental Social Comparison on Adolescents' Depression and Anxiety: The Mediating Role of Upward Social Comparison*  
Hongyang Liu, Palacky University Olomouc, Czech Republic  
Jana Kvintova, Palacky University Olomouc, Czech Republic  
Justyna Dockalova, Palacky University Olomouc, Czech Republic

Parental social comparison is a common phenomenon that occurs in Chinese society. It often manifests as upward comparison, where parents view other children as exemplary role models without shortcomings and compare their own children to these idealized figures. This study aimed to investigate the impact of parental social comparisons on adolescents' depression and anxiety, examining the mediating role of upward social comparisons among adolescents aged 12 to 16 years. Three instruments were administered online: Parental Social Comparison Scale, the upward social comparison subscale of the Iowa-Netherlands Comparison Orientation Measure, a Patient Health Questionnaire (PHQ-4). A total of 576 valid responses were collected. The findings suggest that upward social comparison mediates the positive effects of parental social comparisons on adolescents' depression and anxiety. The results suggest the detrimental impact of parental social comparisons on adolescents' mental health, and this can easily cultivate the comparison mentality of teenagers. This study shows that parental social comparison is not advisable, as parents, it is best to encourage children in ways that are more conducive to adolescent mental health and let them make their own choices rather than comparing them with their peers.

14:10-14:35

88306 | *Teaching Students to Reflect Critically: A Proposed Framework*  
C K Peter Chuah, Singapore University of Social Sciences, Singapore

The use of reflection or reflective learning journals as one of the meta-cognition strategies to influence and support the transfer of learning and development in higher education is well established. However, simply asking students to reflect without sufficient guidance and scaffolding is unproductive. Most reflections tend to result in a superficial summary of what has been done, what worked, and what didn't. While the emergence of ChatGPT and other artificial intelligence tools present themselves as tools that add value to students' toolboxes, they further complicate the development of critical and reflective thinking in some disciplines. This study (a) offers a literature review to explain the concepts of reflection and level of reflection proposed by Kember and colleagues and (b) examines the critical levels found in reflections submitted by a group of postgraduate students enrolled in a communication design course for non-design students at one of the local universities in Singapore. Qualitative content analysis was used to analyze the reflections. Results revealed that most students either misunderstood reflection as a summarized subjective evaluation of a past learning experience or treated it as a direct response to questions outlined in an adopted reflection framework such as Gibb's Reflective Cycle. In addition, this study also highlights the challenges and inhibitors students encounter during reflection, including a lack of reflection literacy and reinforcement and feedback for future improvement. As a result, a structured framework is proposed to facilitate a more focused reflection and make reflection a valuable and meaningful learning activity.

12:55-14:35 | Live-Stream Room 5

# Friday Online Parallel Session 3

## Skills Development

### Session Chair: Tomayess Issa

12:55-13:20

88037 | *A Conceptual Framework for Self-Regulated Learning and Assessment in Pre-Service Teacher Education*

Apichaya Khwankaew, King Mongkut's Institute of Technology Ladkrabang, Thailand

Jirarat Sitthiworachart, King Mongkut's Institute of Technology Ladkrabang, Thailand

Learning Analytics (LA) is a growing trend used to understand how students manage their learning with self-regulation to achieve learning objectives by combining their aptitude with classroom engagement. These involve collecting, analyzing, and reporting student data to optimize learning processes and achievement. By leveraging student data, LA empowers higher education to enhance teaching effectiveness, personalize learning experiences, and address educational challenges. This study investigates the role of LA in supporting Self-Regulated Learning (SRL) among undergraduate pre-service teachers. By analyzing online trace data, we aimed to identify indicators of effective SRL strategies and develop a conceptual framework for assessing SRL. Our systematic review of literature from 2013 to 2023 examined existing research on LA and SRL in higher education. Results indicate that LA can provide valuable insights into students' learning behaviors, enabling the identification of distinct learner profiles. By prioritizing educational measurements aligned with specific SRL stages, we propose to enhance teaching and learning practices for pre-service teachers.

13:20-13:45

86224 | *Using Experiential Learning Activities in Simulation Games to Predict Students' Scores*

Nang Laik Ma, Singapore University of Social Sciences, Singapore

Ivy Sook May Chia, Singapore University of Social Sciences, Singapore

Analytical and problem-solving skills are crucial for thriving in the workplace instead of mere content knowledge. To better prepare our undergraduates for entry into the workforce in this tumultuous time, Experiential Learning Theory (ELT) has been employed in the business programs. A cloud-based simulation game called MonsoonSIM has been deployed in one of the introductory courses in the business school. The simulation game aims to allow students to explore a broad spectrum of business processes ranging from retail, e-commerce, wholesales, manufacturing, procurement, manpower planning, forecasting, accounting, and finance. Through experiential learning and collaboration with teammates via an online portal, students are encouraged to deepen their understanding by playing the game online. In this paper, we aim to analyze the students' activities in the simulation games and use it as a proxy to measure their engagement level and take preemptive action to harness students' problem-solving and data analysis skills. The authors have collected hundreds of students' data from two semesters and used anonymized students' activities and the pre-class quiz results to predict the student's final scores for the course. The regression model is proposed using input as the students' activities and one of the pre-class quizzes to predict the students' final scores. The model accuracy rate is measured using Mean Absolute Percentage Error (MAPE), which is less than 10% and is a good predictive model. It helps the educator to analyse the student's performance early in the course and improve their overall learning experience.

13:45-14:10

88488 | *Authentic Assessments and Teaching Strategies on Learning and Academic Performance: A Case of Republic Polytechnic, School of Hospitality, Singapore*

Derrick Lee, Republic Polytechnic, Singapore

Chris Thomas, Republic Polytechnic, Singapore

Jolene Chew, Republic Polytechnic, Singapore

Educational institutions have adopted a mix of traditional assessments and authentic assessment methods in evaluating students' learning and academic performances. Examples of traditional assessment such as essays, multiple-choice questions, quizzes, tests, and exams. Authentic assessments include portfolios, presentations, design a digital artifact, debates, oral presentations, self- and peer-assessments, projects, and journals (Koh, 2017; Saher, 2022). This paper seeks to examine authentic assessment in evaluating students' performance at School of Hospitality (SOH) at Republic Polytechnic (RP). The study identified five key factors on respondents' perceptions toward authentic and traditional assessments. The five factors are (a) effectiveness of assessment, (b) preference for alternative assessment, (c) participation in authentic assessment, (d) engagement with assessment, and (e) preference for traditional assessments. Findings suggest responses prefer authentic assessments as it motivates learners in provide training in real-life tasks.

14:10-14:35

88358 | *Lecturers' Formative Feedback to Enhance Students' Core and Soft Skills in the Artificial Intelligence Era*

Tomayess Issa, Curtin University, Australia

Mahnaz Hall, Curtin University, Australia

Sarita Ramanan, Curtin University, Mauritius

Adrian Tan, Curtin University, Singapore

Soumish Dev, Curtin University, Mauritius

This study examines students' reactions to the lecturers' formative feedback to determine whether it enhances their core and soft skills in the era of artificial intelligence (AI). Formative feedback confirms students' progress, enabling them to avoid common mistakes in the future and motivating them to complete assessments on time, aligned with the unit objectives. A design thinking approach was employed to understand student needs, challenge assumptions, redefine problems, and create innovative prototyping solutions. Additionally, a quantitative research method was used in this study, collecting 175 responses from postgraduate students studying Project Management and Green Information Technology and Sustainability units at an Australian university. The study results confirmed that 96% of respondents found the lecturers' formative feedback useful, motivating, helpful, encouraging, and easy to follow so they could learn from their mistakes. It also reduced reliance on AI tools in their assessments, making the learning process more interesting and creative, and led to students improving their assessment submission and independent learning skills. Furthermore, 93% of students confirmed that their core and soft skills (i.e., teamwork, motivation, time management, communication, oral presentation) were enhanced by completing the postgraduate units' assessments, including writing academic research reports, participating in team collaborative activities, reflective journals, real project plans, and delivering oral presentations. This outcome was supported by formative feedback as well as monitoring and tracking from the lecturers. A set of recommendations for implementing lecturers' formative feedback will be presented. In the future, this project will be transitioned into other units to strengthen its aims.

# Virtual Poster Presentations

**Read Virtual Poster Presentations & Watch Pre-recorded Virtual Presentations**

Abstracts appear as originally submitted by the author. Any spelling, grammatical, or typographical errors are those of the author.



# ACE2024 Virtual Poster Presentations

## Counselling, Guidance & Adjustment in Education

88571 | *The Experiences of Classmates Surrounding Incidents of 'Vomiting' in Schools: An Investigation Using Scenario-Based Retrospective Among University Students*

Maho Komura, Gifu University, Japan

Takashi Sano, Chukyo University, Japan

Mako Momoda, Hyogo Institute for Traumatic Stress, Japan

In school life, the majority of classroom and other group activities take place. When an injury or illness occurs, it is necessary to give guidance and consideration not only to the injured or ill, but also to students other than the injured or ill. The purpose of this study is to clarify how classmates other than the injured or ill person perceive the scene of an injury or illness. A questionnaire survey of 246 university students was conducted on a fictitious case using the recall method. Most elementary school students were averse to vomiting and often left the scene, whereas middle school students tended to express concern for the vomiting student and actively try to assist him or her. The emotions and behaviors toward injury and illness differed between elementary school students and junior high school students. It was suggested that appropriate instruction differed depending on the development of the student. Appropriate guidance should be considered for each of these differences. It is important to understand the feelings that classmates feel in injury/illness outbreak situations and to provide appropriate guidance to avoid negative feelings toward the injured person.

## Design, Implementation & Assessment of Innovative Technologies in Education

84513 | *Exploring Innovative Educational Techniques: Redesign Myths Through AIGC to Foster Critical Thinking in Youth*

Junwei Rong, Tongji University, China

Kostas Terzidis, Tongji University, China

This study explores the application of artificial intelligence generated content (AIGC) in enhancing critical thinking among adolescents. Observations from a study conducted with middle school students in Shanghai, China, revealed that traditional storytelling methods struggle to effectively stimulate students' critical thinking and creativity. The hypothesis posits that redesigning mythological stories using AIGC can significantly improve these skills. The primary research question examines the impact of traditional versus AIGC redesigned myths on students' critical thinking, while secondary questions delve into the definition of critical thinking, its effects on students, and specific strategies for implementing AIGC tools in education. This study used a mixed-methods approach to assess changes in students' critical thinking skills through a pre and post-intervention tests, supplemented by qualitative interviews and questionnaire analyses. The results showed that students' critical thinking skills improved significantly after exposure to the redesigned mythological story. The incorporation of modern design and innovative narratives made the stories more appealing to contemporary students, retaining cultural and ethical values while introducing elements of AI and prompting reflection on modern technology. This innovative educational technology highlights the collaborative effect between design and generative AI and provides a new direction for the development of educational technology.

## Educational Research, Development & Publishing

87766 | *The Influence of Smart Device Utilization on Career Maturity Among Korean Middle and High School Students*

Eun Jeung Kim, Kyungpook National University, South Korea

The purpose of this study is to examine the mediating effect of information capabilities in the relationship between the utilization of smart devices and career maturity among middle and high school students, as well as the moderated mediating effect of school level. For this purpose, a survey was conducted using Google forms with 400 middle and high school students from February 1, 2024, to April 6, 2024. It was analyzed survey data through frequency and correlation analysis using SPSS Win 27.0 Ver. and the mediation effect and moderated mediating effect were analyzed using the SPSS PROCESS macro 4.2 ver (Model 4, 7). The level of smart device utilization among Korean middle and high school students is relatively low, while their information capabilities and career maturity are high. Second, The level of smart device utilization among middle and high school students affects career maturity through the path of information capabilities. The higher the level of smart device utilization, the higher the information capabilities, and the increased information capabilities, in turn, enhance career maturity. Finally, The effect of smart device utilization on career maturity, mediated by information capabilities, varies depending on the school level. This indicates that the indirect effect of smart device utilization on career maturity through information capabilities differs between middle and high school students. This study highlights the importance of not only enhancing the utilization of smart devices but also improving information capabilities to foster career maturity among Korean middle and high school students.



# ACE2024 Virtual Poster Presentations

## Interdisciplinary, Multidisciplinary & Transdisciplinary Education

88601 | *Feelings when Classmates Become Injured or Ill During Elementary and Junior High School*

Takashi Sano, Chukyo University, Japan

Maho Komura, Gifu University, Japan

Mako Momoda, Hyogo Institute for Traumatic Stress, Japan

When a student is injured or falls ill during school activities, it is important not only to provide the treatment for the injured or ill student but also to consider the well-being of other students and offer educational guidance. While there are guidelines for treating injured students, there has been limited focus on the educational responses required in such situations. This study aims to investigate the experiences of students who witnessed a classmate's illness or injury during elementary and junior high school and to explore their feelings at that time as a basis for developing better educational responses. A retrospective survey was conducted with 205 university students (132 men, 73 women). The survey collected data on their experiences with classmates' illnesses or injuries during elementary and junior high school, and correspondence analysis was used to examine the relationship between the type of incident and the respondents' feelings. Results showed that about half (47.3%) of participants had a memorable experience involving a classmate's injury or illness during their school years. Compassion was linked to incidents like impaired consciousness, hyperventilation, and fractures/bruises, while fear was associated with fractures, accidents, and bleeding. Discomfort was connected to vomiting and incontinence. The findings suggest that negative emotions, such as fear and discomfort, can arise in the surrounding students when a classmate is injured or ill. To prevent these emotions from leading to criticism or bullying, it is essential for teachers to provide appropriate guidance and support to the other students.

## Teaching Experiences, Pedagogy, Practice & Praxis

86916 | *A Fresh Perspective on High School Philosophy: The Case of Cavallé's Approach*

Isabel Alvarez, Autonomous University of Barcelona, Spain

Xavi López García, Autonomous University of Barcelona, Spain

The teaching of philosophy in secondary education across Western countries is a significant issue that has encountered serious challenges in recent decades. The number of hours dedicated to philosophy in school curricula has been drastically reduced in favor of more technical subjects. We advocate for the importance of philosophy education in secondary schools from a broader perspective, one that transcends the idea of it as just another subject. Instead, philosophy should be presented as a lifelong experience, enriching and nurturing young adults by fostering their ability to make thoughtful, independent decisions—ultimately shaping their way of life. In support of this, we introduce the work of Cavalle, who approaches philosophy as a deeper and more sustainable practice. Her method helps young adults confront their insecurities and lack of confidence, which, among other benefits, improves self-management in the classroom. Moreover, her approach has had a positive and significant impact on schools in Spain, where students following her method are showing greater confidence, autonomy, and less dependence on clinical or adult intervention. By fostering student-centered learning, her work encourages secondary school students to become reflective thinkers and problem solvers at an early age.

## Notes

[illegible]



# Virtual Presentations

**Read Virtual Poster Presentations & Watch Pre-recorded Virtual Presentations**

Abstracts appear as originally submitted by the author. Any spelling, grammatical, or typographical errors are those of the author.

# ACE2024 Pre-Recorded Virtual Presentations

## Adult, Lifelong & Distance Learning

85658 | *Changing Students by Osmosis: A Literature Review of Nudge Theory in Educational Technology*  
Chengze Zeng, Peking University, China

Nudge theory is an influential theory in the behavioral sciences and related fields. With the development of information technology, its integration with the area of educational technology has received increasing attention. The purpose of this study is to explore the theoretical combination and practical application of nudge theory in educational technology. First, on the theoretical level, the integration of nudge and educational technology involves discussion of data-driven interventions, the proposal of online engagement frameworks, and integrated analysis frameworks. Further, in terms of the form of application, it can be categorized into three types: information nudges (e.g., email, short message service, and personal feedback), social nudges (e.g., social comparison and social norms), and digital nudges (i.e., user interface design). Finally, current empirical studies have shown that nudging strategies have significant positive effects on students' learning attitudes, behaviors, and effectiveness. However, the effects of nudging strategies in education are influenced by specific application contexts and individual differences, and it requires further clarification of the conditions under which this theory is applicable. Future research directions include exploring the effectiveness and differentiation of different nudging strategies, developing more personalized and interactive nudging tools, and optimizing nudging strategies with data analytics to build more inclusive and effective learning environments.

83354 | *Using Case Studies to Develop Policymaking Competencies in Continuing Education: Integrating Practice and Experience*  
June Gwee, Civil Service College, Singapore

This study investigates how case studies are used to develop critical thinking, problem-solving and communications skills of adult learners in non-academic public policy programmes. Much has been written about the effectiveness of case studies in undergraduate and post-graduate programmes in academic institutes of higher learning but less about the development of public policy competencies in practice-based continuing education programmes. Continuing education programmes are normally shorter in duration and comprised stackable segments to cater to the needs of working adults. Learners in public policy programmes want to develop applied policymaking skills to confront everyday policy problems. The research question for this study is 'How effective are case studies in practitioner-based continuing education public policy programmes?' This paper will start with a review of the literature on the use of case studies in public policy programmes that use the case method approach of learning. Programmes on policymaking tap on both theory and practitioner wisdom to develop competencies in critical thinking, system thinking, sense-making, problem-solving and communications skills. Using data collected through in-depth interviews with programme facilitators of case studies, questionnaires with learners, and first-hand observation of policy programmes, this paper discusses findings and insights on how learning with case studies in continuing education requires some adaption and re-design in order to engage adult learners, and offer deeper learnings of policy in practice.

## Assessment Theories & Methodologies

84218 | *Reliability and Validity of Academic Motivation Scale Among Secondary School Students*  
Hoi Nga Ng, Saint Francis University, Hong Kong  
Kam Weng Boey, University of Hong Kong, Hong Kong

Background: Academic motivation refers to the processes that influence the initiation, direction and persistence of behavior related to knowledge acquisition and achievement in learning environments. A measure named Academic Motivation Scale (AMS) comprising three subscales was developed to assess intrinsic motivation (pursuing a learning activity because of the pleasures and satisfaction derived from the activity itself), extrinsic motivation (engaging in a learning activities because of external reasons), and amotivation (lacking in learning motivation). Objectives: This study aimed to establish the reliability and validity of AMS for the assessment of learning motivation of secondary school students. Methods: A questionnaire comprising items of sociodemographic characteristics, AMS, and criterion measures was designed for data collection. Through convenience sampling, a total of 4827 students (aged between 12 and 18, 53.6% were males) participated in the study. Participation was voluntary and anonymous. Informed consent of students and their parents was solicited before questionnaires were administered. Results: Reliability of the three subscales of AMS were satisfactory (Cronbach's  $\alpha = .75$  to  $.95$ ). Construct validity of AMS was indicated by its positive relationships with the three subscales of school well-being, social inclusion, and academic self-concept and global self-esteem. Confirmation of the expected relationships of intrinsic motivation, extrinsic motivation, and amotivation with psychological distress provided further supports for the validity of AMS. Conclusion: Good psychometric properties of the AMS was empirically established in Hong Kong. With its satisfactory reliability and validity, the AMS can be used to assess learning motivation of secondary school students in Hong Kong.



# ACE2024 Pre-Recorded Virtual Presentations

88760 | *Integrating Siloed and Synergistic Assessments: Enhancing Communication and Collaboration in Engineering and English Education*

Makhfudzah Mokhtar, Universiti Putra Malaysia, Malaysia

Ahmad Salahuddin Mohd Harithuddin, Universiti Putra Malaysia, Malaysia

Ramiza Darmi, Universiti Putra Malaysia, Malaysia

Askiah Jamaluddin, Universiti Putra Malaysia, Malaysia

Siti Mariam Shafie, Universiti Putra Malaysia, Malaysia

Nurul Ainna Reduan, Universiti Putra Malaysia, Malaysia

This study addresses the increasing need for enhanced communication and teamwork skills among Engineering program students' education, coupled with the challenge for English Language and Linguistic program students to effectively articulate technical concepts. It proposes an innovative assessment strategy that integrates discipline-specific tasks with cross-disciplinary collaboration. The study adopted qualitative research design involving three phases of data collection. The first was siloed assessments where the 34 engineering students worked in a team; organizing seminar and preparing lab safety video, and individually discussed complex ideas during fishbowl discussion, and documented experiences and reflections in e-portfolio. The second was the synergistic assessments requiring 21 English Language and Linguistic students to review the e-portfolio on grammar, sentence structure and technical language. Finally, six students (three from engineering and three from English Language and Linguistic programs), were interviewed on their perception regarding the assessments. Thematic Analysis was used to explore key themes related to communication skills development in both technical and non-technical contexts. It was found that, while both groups recognize the importance of clear communication, Engineering students focus on practical presentation skills and teamwork, whereas English students value interdisciplinary collaboration and understanding technical jargon. The proposed approach leverages siloed activities (seminars, video preparation and discussions) to enhance practical communication skills, while synergistic assessments involving English students reviewing engineering e-portfolios foster interdisciplinary learning. The findings suggest that this blended assessment model promotes authentic learning experiences and offers a flexible framework for diverse educational settings, contributing to the advancement of assessment practices in higher education.

## Challenging & Preserving: Culture, Inter/Multiculturalism & Language

88595 | *The Value of Cross-Cultural Design Learning on Interior Design Education*

July Hidayat, University of Pelita Harapan, Indonesia

Bambang Tutuka Adi Nugroho, Universitas Pelita Harapan, Indonesia

Globalization and cross-country migration due to education, work, and tourism have increased cross-cultural interactions between various countries. These cross-cultural interactions occasionally create diaspora communities of families from countries with different cultural backgrounds. Advances in transportation, information, and communication technology also make it easier for people from different cultural backgrounds to interact with each other. Facing this situation, education in design colleges needs to equip students to meet the needs of user groups from different cultural backgrounds through cross-cultural design. This study aims to understand the value of cross-cultural design learning. This study uses a case study research method. The case study is about ten cross-cultural interior designs belonging to mixed Japanese and Chinese families, which ten students designed. The things analyzed are (1) how to dialogue between Japanese and Chinese cultures, (2) how to represent the dialogue between the two cultures in a hybrid design, and (3) the values learned from the resulting hybrid designs. The results of creating hybrid designs are lessons on thinking in a middle way, having an open attitude, tolerance, respect, and prioritizing dialogue between cultural differences.

88448 | *Preserving Modern Local Skills: A Case Study of Embroiderers in Chiang Mai, Thailand*

Pathitta Nirunpornputta, Bangkok University, Thailand

The paper contributes to developing local embroidery skills in Northern Thailand (Chiang Mai) on the interplay between traditional and modern practices. This paper is qualitative research with a practice-based method that combines in-depth interviews, participant observation, and autoethnography to examine how local cultural skills have adapted to contemporary demands through a case study of local embroiderers. In the past, embroiderers in Chiang Mai specialised in traditional Lan Na design patterns for local garments (Lan Na is a specific place in Northern Thailand). However, as the demand for conventional clothing declined, numerous local garment factories were forced to close. Embroiderers, therefore, started shifting their focus from traditional patterns to modern designs, raising a critical question about the preservation of local skills "If local practitioners (embroiders) no longer engage with traditional designs, is it still valuable to preserve these local cultural skills?" In conclusion, the research presents 'an explanation of how local embroidery practices have evolved', highlighting the perspectives of key stakeholders such as academics, local designers, and those who are involved with local embroiders. The findings emphasise the complex dynamics of cultural preservation in the face of changing social needs and contribute to broader discussions on the value of preserving local skills in a modern context.

88880 | *The Impact of Participation in Traditional Performing Arts on Undergraduates' Identity*

Roszalina Binte Rawi, Nanyang Technological University, Singapore

This study investigates the impact of participation in a university module on Malay performing arts, specifically dikir barat, Malay dance, and angklung, on the identity formation of Malay undergraduates. The study surveyed 40 students and analyzed 10 reflection videos, focusing on undergraduates who had limited prior engagement with the Malay language and culture. Using questionnaires and video reflections, the research aimed to answer two key questions: (a) How do Malay undergraduates who are inactive in Malay language and culture perceive their identity? (b) How does participation in Malay performing arts impact their sense of identity as Malays? The findings reveal that, prior to the module, many students felt detached from their identity as Malays, citing barriers in their use of the Malay language and limited interaction with the Malay community in university. However, through participation in the module, students reported a renewed sense of identity and connectedness to their cultural roots. The use of the Malay language in performances and the immersive nature of cultural art forms fostered this reconnection. The supportive learning environment enabled students to engage with the language and culture, facilitating personal growth and cultural exploration. Offered three times since 2022, this new module shows promising outcomes but is limited by small sample size. Future research could involve group interviews and explore development of cultural programs aimed at Malay undergraduates who do not major in Malay studies. This research underscores the potential of arts-based modules in higher education to foster cultural identity development and promote inclusivity.

# ACE2024 Pre-Recorded Virtual Presentations

88523 | *Tofa Saili: Samoan Conceptual Knowledge and the Implications for Teaching and Learning in Aotearoa New Zealand*  
Anamua Lole, Manukau Institute of Technology, New Zealand

Pacific peoples make up the third largest ethnic group in New Zealand (New Zealand Government, 2023). From the perspective of a Samoan (Pacific) teacher educator, I will delve into key findings from a literature review on the Samoan concept of *tōfā saili*, meaning 'to search' or to research. The literature review is drawn from the work of mainly Samoan and/or Pacific indigenous orators and researchers, including the work of Tui Atua Tupua Tamasese. Key findings from the literature highlights teaching methods that emerge from the concept of *tōfā saili*, and a consideration of how such teaching methods offers an opportunity to apply cultural knowledge in an authentic and relevant way. *Tōfā saili* places a strong emphasis on collaborative, reciprocal, and holistic approaches to teaching and learning that recognises the need for educational experiences that are deeply connected with one's own cultural identity and values. This discussion of *tōfā saili* forms part of my broader doctoral research, which aims to explore Samoan conceptual knowledge to inform educational pedagogy in the diaspora.

## Counselling, Guidance & Adjustment in Education

88582 | *Significance of the Discomfort that Dispatched School Social Workers Have During Their Entry-level Period*  
Hitomi Satoh, Nagasaki Junshin Catholic University, Japan

In recent years, more and more people in Japan are becoming school social workers after having social work experience outside of the education field. While having social work experience is helpful for SSWers in their work, this experience often makes them feel uncomfortable when they start their new job in the school setting. This study aims to clarify this discomfort and examine how SSWers cope with it. Interviews with three dispatched SSWers with less than three years of work experience were analyzed using M-GTA. SSWers have the following three uncomfortable feelings during the newcomer period. (1) There is a gap between the teachers' and SSWer's vision of what they want to achieve for their children. While teachers seek educational outcomes, SSWers aim to stabilize the child's life foundation. In addition, (2) when discussing support with teachers, there is a lack of a common language to understand each other's intentions. This makes it difficult to unify the intention of support. Furthermore, (3) since it is mainly the teachers who decide the division of roles in dealing with cases, even in cases where SSWer intervention is effective, they are unable to respond as they would like, and feel a lack of a sense of place and conflict about how they should be as SSWers. Finally, based on the narratives, we discuss how being able to positively perceive discomfort due to social work experience is an important factor in being able to continue as a professional while maintaining externality.

88639 | *The Role of Process Observation Analysis in Understanding Group Dynamics: Input to Effective Participation, Communication, and Interaction*

Vielle Digor, Technological Institute of the Philippines, Philippines  
Geewel Dariagan, Technological Institute of the Philippines, Philippines  
Kristine Bernadette Empaynado, Technological Institute of the Philippines, Philippines  
Jemerson Baldonado, Technological Institute of the Philippines, Philippines  
Jeremie Nervar, Technological Institute of the Philippines, Philippines  
Isaac Philip Eraga, Technological Institute of the Philippines, Philippines  
Jaypy Tenerife, Technological Institute of the Philippines, Philippines

The process observation analysis highlighted practical applications of essential elements in group dynamics such as interaction, participation, and task fulfillment. This study emphasized the importance of incorporating process observation techniques to educational counseling in ensuring support to obtain student's good educational outcomes, effective decision-making, and smooth transition processes of conflict resolution. The study observed that an organized agenda and proper time management during engagements can contribute to the productivity in an organization in general. The study showed the value of planning and timing in obtaining successful results of organizational meetings. The use of a participation matrix in process observation analysis showcased the methodological approach of observing and evaluating how each participants contributed to the group discussion. This allowed a thorough examination of group interaction, effective participation, and overall productivity in group engagements. The use of both qualitative and quantitative techniques in this study emphasized the critical impact of data collection and observational techniques in doing research. These approaches foster a participatory learning environment leading to a more effective decision-making process, and achievement of a highly observable educational outcomes. The results of the study showed that a U-shaped seating formation facilitated equal engagement and open conversation during group dynamic activities. This ensured equal involvement of all members in the activity. The results also showed that creating a collaborative and conducive atmosphere are contributory to an active participation. Lastly, effective process observation analysis serves as an effective tool in analyzing interactions, communication, and other elements, which are essential for cooperative decision-making processes.

# ACE2024 Pre-Recorded Virtual Presentations

## Curriculum Design & Development

85535 | *Enhancing Students' Attitudes Towards STEM and AI by Implementing STEM-Minecraft Games-based Learning Module Among Junior High School Students*

McMillen Anak Otoh, Universiti Sains Malaysia, Malaysia  
Mohd Ali Bin Samsudin, Universiti Sains Malaysia, Malaysia

STEM-Minecraft Games Based Learning module is a module developed based on Minecraft games to introduce the concept of AI through STEM Education. This quantitative study was conducted to develop the STEM-Minecraft Game-Based Learning Module and evaluate the module in enhancing and retaining positive attitudes toward AI and STEM among junior high school students in Lawas, Sarawak, Malaysia. This research design employs a pre-experimental design - One Group Pretest-Post-Test Design. The quantitative data is collected by two questionnaires from 35 respondents, the S-STEM survey to measure students' attitudes toward STEM and the General Attitudes Towards AI Scale (GA AIS) to measure students' attitudes towards AI. Data analysis encompasses descriptive statistical analysis and inference statistical analysis and the data collected from the pretest, posttest and delayed posttest was analyzed using Statistical Package for Social Science (SPSS) software, version 24. The study findings show that respondents have high positive attitudes towards STEM ( $P = 0.00$ ) and AI ( $P = 0.00$ ) after the implementation of the STEM-Minecraft Games-Based Learning module in teaching and learning sessions. The study findings also show that positive attitudes towards STEM and AI are retained among the respondents. This lesson module is effective in enhancing and retaining students' attitudes towards STEM and AI.

83833 | *PRIMM Model Towards Novice Students' Motivation in Learning Programming*  
Tevya Letchumanan, Sarawak Matriculation College, Malaysia

As computer programming becomes one of the most sought-after skills, novice learners, especially Malaysian Matriculation students, struggle to grasp the ideas of computational thinking. The lack of time in the traditional classroom also inhibits constructive communication. Together, these also cause high stress and low self-efficacy in learning programming languages. This research has been guided by constructivism to design a Predict-Run-Investigate-Modify-Make (PRIMM) module that will allow learners to think at a higher-order level via social constructivism theory, engagement theory, and self-determination theory. The literature has strengthened the role of PRIMM in improving the academic performance of students. However, there is a gap in how the PRIMM model improves motivation, engagement, and academic success among pre-university students in the Malaysian context. This research aims to design a PRIMM module by underpinning the constructivism framework, exploring the role of the PRIMM model in mediating learning motivation, authentic engagement, and reducing stress, and validating the module via a focus group. Phenomenological research was carried out to achieve these objectives, and volunteer participants were subjected to focus group interviews. Five major themes emerged from the focus group interview: Motivated, Engaged, Enjoyable, Efficient, and Collaboration. Research findings state that the PRIMM module developed has improved collaboration, learning interest, learning motivation, and authentic engagement and has reduced stress in learning programming languages among beginners. The findings of this research provide a framework for lecturers to redesign the computer science classrooms in Malaysian matriculation colleges via classroom activities that implement problem solving before formal instructions.

88604 | *Happiness Framework for Sustainable School Development in Primary Level*  
Kamonsiri Buranasiri, King Mongkut's University of Technology Thonburi, Thailand

Happiness is a simple characteristic of human, but influenced by a lot of external factors and needs to be maintained and developed by the individual. School is an important environment and community for young children to practice and grow, in the balance of Academic intelligence and Emotional intelligence. The happiness criteria in schools that are being supported on this improvement of education suggested by UNESCO, is setting up a goal of Happy school framework by 2030. In this career path of quality in happiness learning, also needs to be focused and improved. This research aims to study the effective factors in teaching and learning for students in primary school. The result of school framework and standard in criteria of 'HAPPINESS' as the target of a better place for student's achievements either academic intelligence and Emotional intelligence to support the Sustainable Development Goals (SDGs) in education. The focus group is students in primary school level age range between 9-12. The methodology is referred to Self-determination Theory (SDT), Emotional Intelligence (EI), confirmed by the Structures Equation Model (SEM) of Happiness learning factors. The examined factors consist of: a.) Positive perceptions b.) Safety & Supportive Environments c.) Happiness Curriculums d.) Positive connections in School e.) Socio-cultural factor, and f.) Less stress learning evaluation and assessment in the context of Happy school framework and standard.

87135 | *Effects of Integrating DGBL and DT into an Interactive Online Learning Platform on Students' Health-related Condition, Awareness, and Psychological Cognition in Diet and Learning Outcomes*  
Meng-Fang Tsai, National Kaohsiung Normal University, Taiwan  
Deng-Neng Chen, National Pingtung University of Science and Technology, Taiwan

As dietary habits evolve and awareness of the risks of unhealthy eating grows, the importance of promoting healthy eating habits has intensified. The Ministry of Health and Welfare in Taiwan (2018) highlighted significant deficiencies among adults aged 19-64 in meeting recommended intake levels for dairy, vegetables, fruits, and nuts/seeds. Scholars have explored innovative educational approaches to address these concerns. This quantitative study investigated the integration of digital game-based learning (DGBL) and design thinking (DT) framework in developing an interactive online learning platform for the "Psychology of Eating" course ( $N=77$ ) in General Education. Two sets of questionnaires, assessing "Students' awareness of dietary issues and psychological cognition related to eating (ADIPCE)" and "Students' self-perceived health status (SPHS), current health perceptions (CHP), and current dietary behaviors (CDB)", were administered at the beginning and end of the semester. Additionally, "The game flow experience and motivation questionnaire" and "Design thinking questionnaire (DTQ)" were administered at the end of the semester. Results from paired sample t-tests demonstrated statistically significant improvements in SPHS, CHP, CDB, and ADIPCE scores. Statistically significant correlations were found among students' game flow antecedent (GFA), game flow experience (GFE), intrinsic motivation (IM), and extrinsic motivation (EM), and DT experiences in interactive communication (IC), higher-order thinking (HOT), goal evaluation and application (GEA), and integrative learning experiences (ILE). These findings underscore the potential of integrating DGBL and DT in designing interactive online learning platforms to enhance learning outcomes. Educators can leverage these insights to optimize curriculum design and foster students' healthier dietary awareness, cognition, and behaviors.

# ACE2024 Pre-Recorded Virtual Presentations

## Design, Implementation & Assessment of Innovative Technologies in Education

86999 | *Learning Innovation in the 3T Area: the Effectiveness of Moodle-Based Blended Learning on Critical Thinking Skills*

Desak Made Anggraeni, Universitas Negeri Surabaya, Indonesia

Binar Kurnia Prahani, Universitas Negeri Surabaya, Indonesia

Suyatno, Universitas Negeri Surabaya, Indonesia

Budi Jatmiko, Universitas Negeri Surabaya, Indonesia

This research aims to evaluate the effectiveness of blended learning MOODLE-based in improving the critical thinking skills of prospective teacher students in 3T (Frontier, Outermost, and Disadvantaged) areas. This research uses mixed research methods (mixed methods). The research design used one group pre-test and a post-test design repeated without control classes. The sample in this study was 34 prospective teacher students in semester 1 of the 2023/2024 academic year at universities in Sumba - NTT - Indonesia. Learning blended combines face-to-face meetings with the usage platform e-learning MOODLE as the primary media. Learning design focuses on active interaction, critical discussion, and problem-solving through online assignments and forums. The instruments used in this research consisted of the CBC test and the student response questionnaire. Data analysis techniques use quantitative and qualitative descriptive, paired t-test, N-Gain, and test-t independent. The research results show that learning blended learning MOODLE-based effectiveness in increasing KBK is shown by (a) average N-Gain in the medium category, (b) average N-Gain not significantly different (consistent) for each class with a significance level = 5%, (c) student responses are categorized as very effective. The research results concluded that learning blended MOODLE-based is effective in increasing the CBC of prospective teacher students in 3T areas. Hopefully, these findings can become a reference for educational institutions developing creative and responsive learning strategies, especially in areas with limited access to education.

83957 | *DIMenGeComS in Action: Evaluating its Effectiveness on Grade 8 Mendelian Genetics Education*

Azriel Barrientos, Mindanao State University-Iligan Institute of Technology, Philippines

Monera Salic-Hairulla, Mindanao State University-Iligan Institute of Technology, Philippines

Saddam Bazer, Mindanao State University-Iligan Institute of Technology, Philippines

Joy Bagaloyos, Mindanao State University-Iligan Institute of Technology, Philippines

Sotero Malayao Jr., Mindanao State University-Iligan Institute of Technology, Philippines

In the Philippines, creating an innovative and reliable digital interactive resource for Biology teaching and learning is a never-ending task because there aren't many learning resources available to all students. In response to the lack of dependable visualization resources, researchers developed Digital Interactive Mendelian Genetics Comic Stories (DIMenGeComS) as supplemental learning material for Mendelian Genetics classes of Grade 8 students. ADDIE (analysis, design, development, implementation, and evaluation) model served as the developmental framework for the study as a model of the research design. The DIMenGeComS evaluation tool and the achievement test questionnaire were used to gather the data, meanwhile, the Paired Samples t-Test, frequency count, mean, standard deviation, percentage, and normalized gain score were used to interpret the results. The developed DIMenGeComS received an "Excellent" rating from the 7 Biology and Technology experts indicating that all areas of education and work are sufficiently covered by the DIMenGeComS, and the overall caliber of the material is excellent. The quantitative findings have shown an increase in the level of conceptual understanding of grade 8 students in learning Mendelian Genetics based on the pretest-posttest results. There is also a significant difference between the pretest and post-test scores as specified by normalized gain scores in sections such as Linnaeus (0.57), and Sampaguita (0.69), all of which were medium to approaching high-class gain and had significant probabilities ( $p < 0.0001$ ) less than 0.05 level of significance.

85526 | *Cultural Affective Factors and Group Dynamics in COIL Projects: How Much Autonomy is too Much Autonomy?*

Michael Barr, Kyoto University of Foreign Studies, Japan

Brian Bachman, Kyoto University of Foreign Studies, Japan

Yi-Hung Liao, National Pingtung University, Taiwan

This study examined the collaboration and group dynamics within international cohorts researching the UN Sustainable Development Goals in a COIL (collaborative online international learning) environment. It culminated in a final recorded video project in the format of a multi-participant screencast-style presentation. Cultural concepts of politeness, leadership, turn-taking, and perceived notions of correct behavior naturally affect interactions in group communicative situations. This study aimed to develop a greater understanding of the interplay between stereotypically shy Japanese behavior and traditionally assertive Taiwanese communicative norms. What can we do as language educators to promote effective group work and intercultural communication, and what is the best balance between scaffolded content and student-centered autonomy? This project was the fifth iteration of an ongoing COIL project between Taiwan and Japan. Building on past successes, shared materials on the Google platform were used as an effective method of working between international groups in asynchronous interactions. Additionally, participants used LINE Openchat groups for direct communication, allowing for a safe and moderated space which maximized privacy and transparency. Students utilized their choice of online platforms for live meetings, giving each cohort autonomy within their learning environment. Our methodology for evaluating the efficacy of group interactions used student surveys and the analysis of recordings and transcripts of group meetings. Consent and anonymization of data protected student privacy and confidentiality. This study should be of interest to educators undertaking COIL projects and/or enabling their students to improve communication skills in international contexts.



# ACE2024 Pre-Recorded Virtual Presentations

88398 | *Exploring Students' Experiences and Attitudes Toward Text-Generating AI in Foreign Language Learning: A Study of Japanese University Students*

Harumi Kashiwagi, Kobe University, Japan

Min Kang, Kobe University, Japan

Advancements in generative AI technology have the potential to enhance foreign language learning. However, since its educational use is still in its early stages, understanding learners' experiences and perceptions is crucial. This study explored the experiences and attitudes of 77 Japanese university students from social sciences and humanities classes toward incorporating text-generating AI into foreign language learning, using a five-point Likert scale. The findings reveal three key points: (1) Approximately 70% of students in both classes had used text-generating AI; (2) The necessity and interest in acquiring text-generating AI skills scored an average of 4 or higher in both classes. While students in both fields recognized the importance of AI-related skills, social sciences students showed significantly higher levels of necessity and interest compared to their humanities counterparts; (3) Regarding interest in using text-generating AI for English learning, humanities students averaged a score of 4, while social sciences students averaged 3.8, with no significant difference between the groups. Additionally, 50% to 60% of students in both classes had not yet used text-generating AI for English learning. Their interest levels might evolve as they gain more experience with this technology in the context of language learning. It is important to guide students on how to effectively use AI to benefit their English learning.

86961 | *Digital Games and Virtual Worlds: Research Methods and Methodologies for Novel Contexts*

PG Schrader, University of Nevada, United States

Mark Carroll, KIPP Colorado Public Schools, United States

This work describes three previous studies with video games. Games were used because they are bounded systems and a digital Petri dish to expand what we know about research practices involving technology and learning. The work posits three key perspectives: 1) games are ubiquitous complex systems; 2) existing frameworks from the learning sciences and human-computer interaction research provide excellent ways to conceptualize research questions, variables, and inferences; and 3) understanding these systems provides a valuable analog to the implementation of research in a globalized world that is increasingly virtual. These perspectives evolved from several years of research and address special considerations, challenges, or pitfalls when deciding on a system, research questions, framework, etc. Three studies are shared, 1) an experimental design to examine personality and behavior within the World of Warcraft; 2) a digital Delphi approach (i.e., iterative, sequential, mixed methods) to gather information from a novel game (i.e., the League of Legends) and develop an instrument to ascertain key factors involved in performance; and 3) a sequential mixed-methods approach to determine the nature of player assertions about success in the game and evaluate those assertions relative to artifacts from game play (i.e., using educational data mining and learning analytics). Findings indicate that many assertions are easily examined or refuted using authentic game data. Overall, the work frames a heuristic for research based on six principles (Framework, System, Agency, Methods, Analyses, and Inferences) and broader implications for learning, assessment, research, and design in an interconnected and globalizing technological spaces.

85551 | *A Hybrid SEM-Artificial Neural Network Study on Students' Usage and Perceptions of ChatGPT: Exploring Academic Work Engagement*

Klint Allen Mariñas, Mapua University, Philippines

Charmine Sheena Saflor, De La Salle University, Philippines

Jasfer Von Chico, Occidental Mindoro State College, Philippines

Hannah Maureen Manzano, Occidental Mindoro State College, Philippines

Monica Shane Tanglao, Occidental Mindoro State College, Philippines

The emergence of artificial intelligence (AI), particularly ChatGPT, became widely used to aid students in educational tasks. The current study investigated the student's usage and perceptions of ChatGPT in academic work engagement using a revised Technology Acceptance Model (TAM) and Theory of Planned Behavior (TPB) to analyze the complex interplay of various latent variables, thus contributing to a deeper understanding of AI adoption in educational settings. An online questionnaire comprising 55 items was distributed, and 315 sample data were collected. Eleven latent variables were examined: technology readiness, user engagement, perceived ease of use, perceived usefulness, social influence, academic work engagement, attitude towards using ChatGPT, self-efficacy, response quality, intention to use, and actual use of ChatGPT. Structural Equation Modeling (SEM) results revealed that technology readiness was positively correlated with user engagement. Furthermore, user engagement had a significant direct relationship with social influence, directly affecting academic work engagement. Subsequently, intention to use was significantly influenced by attitude towards using, response quality, and considerably related to the actual use of ChatGPT. Furthermore, the integration of Artificial Neural Networks (ANN) indicated the intention to use it as the most influential factor. Moreover, it gives a more accurate model with an average RMSE of 0.0524 and 0.0552 for training and testing data sets. The findings of this study provide helpful insights into determining the factors that influenced the adoption of ChatGPT in academic environments and further enhance the platform's overall performance. Lastly, the study's model construct will benefit researchers and other sectors aiming to investigate

# ACE2024 Pre-Recorded Virtual Presentations

88484 | *Edutainment: What We Can Learn from Interactive Attractions*

Victoria Zinga, Brock University, Canada

Dawn Zinga, Brock University, Canada

The entertainment industry has a lot to offer education via edutainment (entertainment with educational aspects added) that uses aspects such as play, exploration, and interactivity to foster learning. Edutainment mediums take many forms including: video games; documentaries; museums; and theme parks. While most mediums have been around for decades, educational attractions are newer and change quickly with technological advances. We focus on edutainment in Disney's most educational theme park, Epcot. Epcot combines the expected attractions with strong educational elements woven throughout the park. Drawing upon key edutainment focused attractions such as Living Seas, Living with the Land, Universe of Energy, and Journey of Water, this paper analyses how educational elements have been successfully embedded in attractions, when they have failed, and why they are important to education. We used data sources such as direct observation, field notes, and archival information and analyzed edutainment type attractions through the lens of game theory combined with elements of Piaget's and Vygotsky's theories. The discussion of lessons learned focuses on the limitations and advantages related to various target audiences (e.g. preschoolers, middle schoolers), educational content (e.g. sustainability, water cycle, fossil fuels, agricultural techniques), delivery methods (how educational elements are integrated), and impact on attraction characteristics (e.g. popularity, ride-ability). In conclusion, we found that edutainment can be successfully embedded in attractions but the tension between the educational content delivery and attraction characteristics needs to be effectively managed for this edutainment medium to be successful.

## Education, Sustainability & Society: Social Justice, Development & Political Movements

86263 | *Comparative Analysis of Educational Concepts and Outcomes Between Public High Schools in County Town and New First-Tier Cities*

Jiwen Yang, University of Sydney, Australia

This study explores the disparities and correlations in educational concepts and outcomes between public high schools in Heilongjiang County Town and new first-tier cities in Zhejiang Province, China. Focusing on academic achievements, graduation development, and the educational philosophies of parents and teachers, we employ a comprehensive approach to highlight regional differences.

We compare standardized test scores, college entrance exam results, and GPAs through quantitative analysis to identify performance gaps and the factors influencing them, such as resource allocation and teaching methods. Graduation development is examined through a longitudinal study tracking post-secondary trajectories, including higher education enrollment rates, employment statistics, and vocational training. This provides insights into the effectiveness of educational programs in preparing students for future careers and further education. Additionally, we investigate the educational philosophies of parents and teachers using a mixed-methods approach, combining qualitative interviews with quantitative surveys. This analysis reveals how regional contexts shape educational practices and influence expectations and aspirations. The findings offer a comparative analysis of educational environments in Heilongjiang County Town and Zhejiang Province's new first-tier cities, highlighting their impact on student outcomes and stakeholder perceptions. This study aims to inform strategies to bridge educational gaps, enhance equity, and improve educational quality. By understanding stakeholder attitudes, we can develop culturally responsive educational policies and practices tailored to each region's unique needs.

86901 | *Critical Discourse Analysis of Global Discourse in Chinese Secondary School Official Citizenship Education Textbook: "Contemporary International Politics and Economy"*

Wanying Li, Durham University, United Kingdom

In response to increasing global interconnectedness and the urgent need for collaborative solutions to challenges such as climate change and pandemics, Global Citizenship Education and Cosmopolitanism Education have gained significant traction. In China, cosmopolitanism has been notably promoted through the core political narrative "a Community of Shared Future for Mankind" (CSFM), which has influenced educational policies. The introduction of new curriculum objectives for the Chinese secondary school subject "Thoughts and Politics" in 2019 embodies these cosmopolitan values, emphasizing communication skills, respect for diversity, and an international perspective. Despite these curricular reforms, research on the representation of cosmopolitan ideas in textbooks remains limited. This study aims to address this gap by analyzing the textbook "Contemporary International Politics and Economy," chosen for its strong global orientation. Employing Fairclough's Critical Discourse Analysis (CDA) framework, the study examines the presentation of global discourses and their possible implications for students. The findings reveal that the textbook discourse seeks to instill a commitment to Chinese cosmopolitanism in students, preparing them to represent Chinese interests globally while fostering an open and respectful approach to other cultures and civilizations.

88643 | *Education in Conflict Regions: A Narrative Study on Educational Participation in Higher Education in Manipur, India*

Themhorchan Shadang, Dr. B. R. Ambedkar University Delhi, India

Social and educational environments play crucial role for developing confidence in one's educational pursuit since they offer the best chances for participation both within and outside of academic spaces, so nurturing both personal and intellectual growth. Studies addressing the idea of participation are typically conducted in a continuous learning setting, where evidence of socio-political, regional or ethnic components are found to have negligible impact on students' lives. This empirical study examines some of the narratives emerging from the university experiences of the students in Manipur, a state characterized as one of the troubled regions of India, which recently saw deadly ethnic violence that led to widespread internal displacement within and outside the state. A thematic analysis was carried out as part of this comprehensive study involving five university students from Manipur to examine trends and interpretations emerging from their narratives. The outcome demonstrates the students' tenacity in pursuing their education and their ability to turn setbacks into learning opportunities. In addition to examining the students' actual experiences and perceptions of what it means to participate in a crisis-ridden environment, this study also aims to serve as a call to action for the public to engage in a dialogue about education, particularly in conflict-ridden areas, in order to protect the advancement of education.

# ACE2024 Pre-Recorded Virtual Presentations

## Educational Policy, Leadership, Management & Administration

85801 | *How the Organizational Management of Leaders Influences the Ease of Help-Seeking Among Childcare Teachers*  
Maori Urakawa, Nagasaki Junshin Catholic University, Japan

The increasing number of children with special needs and the difficulty of dealing with their parents have become problems for childcare facilities in Japan. These problems are difficult for a single childcare teacher to deal with, and in some cases, they are unable to request assistance from other teachers or leaders, leading to turnover. This study aims to clarify how leaders and middle leaders in child-care facilities with low turnover manage their organizations to make it easier for teachers to request assistance.

(Methods) Four leaders and middle leaders were interviewed and analyzed using M-GTA.

(Results and Discussion) In organizations with low turnover of childcare teachers, (1) thorough information sharing among childcare teachers, from problems to results, was conducted by leaders in order to facilitate requests for assistance. This led to an awareness throughout the organization that problems that arose in the preschools were not individual problems but the problems of the entire preschool. Furthermore, (2) the leaders had the idea that the new teachers must have problems, and they actively tried to draw out the problems of the new teachers from the leaders' side. In addition, (3) the leaders assessed whether the teachers had any problems by creating individual informal relationships with them.

Furthermore, (4) the leader made various attempts to ensure that the entire organization positively accepted the taking of leave. Based on these results, we will discuss how organizational management should be to enable collaboration as a team.

85501 | *Professional Identity and Development of Teachers with Multiple Identities*  
Chia Hao Liu, National Taipei University of Technology, Taiwan  
Hsiao-Fen Liu, National Taipei University of Technology, Taiwan

The professional identity is the core of professional practice, and the formation, maintenance and change of professional identity are a lifelong learning process. For teachers with multiple identities in a technical high school, the construction of professional identity in multiple roles is an important issue that needs to be clarified in the professional development selection process, whether it is to prioritize the general teaching role, optimize administrative capabilities, or develop coaching skills. This article finds that for teachers with multiple mixed roles, the concept of professional identity is sometimes vague and overlapped. Based on phenomenology, this article uses the body as a research tool to clarify the perception of professional identity in seven perceptual propositions under the state of vagueness and adjustment of professional identity.

After repeated reviews of texts, self-extraction and reflection, this article preliminarily classifies the concept of professional identity and development for teachers with multiple identities in four dimensions: 1. Professional identity should start from within, 2. The lack of identity makes it difficult for teachers to develop professionally, 3. Teachers with multiple professions need guidance in the process of identity recognition, and 4. Emphasise the career development and professional growth of teachers with multiple role identities. Through the clarification of these four dimensions, this article provides a reference for teachers with multiple identities to adapt and adjust themselves internally and externally in the process of changes and entanglements.

88499 | *Educational Opportunity & Benefit of Education Subsidy Policy in Nakornnayok Thailand*  
Ravipan Saleepon, Srinakharinwirot University, Thailand

The article examines factors contributing to unequal access to education in Nakornnayok Thailand, including individual environmental factors and government policies. It evaluates the effectiveness of government education subsidies in promoting equal opportunity. The article uses the Opportunity Incidence Analysis (OIA) method to compare the distribution and equality of educational opportunity with the role of government expenditure. The article is particularly relevant for those interested in education policy in developing countries and the use of OIA as a tool for policy analysis. The objective of this research is to examine the allocation and equitability of educational opportunities, as well as the efficacy of government expenditure in Nakhon Nayok Province. This study utilizes data from the Household Socio-Economic Survey conducted by the National Statistical Office. The years after the implementation of the policy were 2017 and 2020. The findings indicate that implementing a 15-year tuition-free education program and allocating public funds toward education yield positive outcomes. Education exerts a significant impact on the availability of educational possibilities. The Human Opportunity Index in Education (Nakorn Nayok) experienced an average gain of 1% across all levels of public school in 2020, indicating an improvement in students' education compared to 2017. Moreover, studies at the provincial level emphasize the positive impacts of a densely populated region with sufficient fundamental infrastructure. In conclusion, the study determined that the allocation of benefits from education policy is equitable, notwithstanding lingering disparities.

87319 | *Training Mechanism of Vocational Master: A Case Study of Chinese Universities*  
Huihui Fan, Shandong University of Engineering Vocational Technology, China  
Yujie Ma, University of Birmingham, United Kingdom  
Jian Xu, Qiulongtai Kindergarten; Affiliated Early Childhood Education Group; Shenzhen Guangming Institute of Education Sciences, China

The reform of the training mechanism for master's degree programs in vocational education constitutes a pivotal task in the ongoing reform and development of professional graduate education, carrying immense strategic significance. Guided by the theory of systems science, this study adopts qualitative research methods, with Z School, S School, and Q School serving as illustrative case studies, to delve into the current operational status of vocational education master's degree programs. The investigation uncovers existing problems and analyzes their underlying causes across five dimensions: training objectives, curriculum teaching, professional practice, thesis supervision, and mentor guidance. This study further explores the reasons for these issues from four perspectives: organization, motivation, system, and guarantee. To address these challenges, four mechanisms are proposed: a process mechanism, an incentive mechanism, a management mechanism, and a guarantee mechanism.

# ACE2024 Pre-Recorded Virtual Presentations

## Educational Research, Development & Publishing

87084 | *Evaluating Western Cultural Content in Chinese Middle School English Textbooks Using the Zone of Proximal Development*

Peihan Ji, Wenzhou University, China

Yujie Su, Wenzhou University, China

Vivian Ngan-Lin Lei, Macao Polytechnic University, China

Xiaoshu Xu, Wenzhou University, China

Yuqing Dai, Wenzhou University, China

With the increasing communication between China and other parts of the world, cross-cultural education has become increasingly important, necessitating the examination of non-Chinese, particularly Western, cultural elements in English education. Vygotsky's "zone of proximal development" (ZPD) theory emphasizes the critical role of development space in students' growth and supports the idea that the inclusion of Western elements in teaching materials acts as a scaffold for students to learn about Western culture. This paper evaluates the effectiveness of textbook compilation from three perspectives: students' current level, potential development level, and auxiliary support, using ZPD theory. By examining the Western cultural content in Foreign Language Teaching and Research Press (FLTRP) textbooks through a mixed methods approach, including analysis, questionnaires, and interviews, it was found that the assessment of students' current level is relatively lacking, and the scaffolding for auxiliary cultural teaching is minimal and often overlooked. The study suggests enhancing the evaluation of student's current level, emphasizing Western cultural connotations, presenting multicultural contrasts, increasing interest and authenticity, and adding auxiliary supports to better facilitate students' cognitive and psychological development.

85513 | *Exploring the Effects of Gender, Technology, and Economic Status Towards Indonesian Students' Science Performance in PISA 2022*

Wawan Kurniawan, The University of Adelaide, Australia

Science is one of the vital subjects that assists students to develop their high order thinking skills. Correlatively, Programme for International Student Assessment (PISA) is one of impactful international studies that is assess and evaluate students' science performance through tests and surveys that may affect their performance in science. However, studies that explore how gender, technology, and economic status is rarely found in Indonesian and global contexts. Therefore, this study aims to examine the effects of gender, information and communication technologies (ICT) resources, and index of economic, social and cultural status (ESCS) towards Indonesian students' science performance based on PISA 2022 data. This quantitative study used the whole sample (N= 13,439) of 15-year-old Indonesian students who participated in the tests and surveys. Through the conduction of structural equation modelling (SEM) using AMOS software 29 version, this study found that student gender insignificantly influences ( $\beta=0.05$ ) science performance and also has minor correlation towards ICT resources and ESCS ( $\beta=0.02$ ). Meanwhile, ICT resources had direct moderate effect ( $\beta=0.29$ ) on science performance which is supported by ESCS as it is highly correlated to the availability of ICT resources ( $\beta=0.99$ ). Although this research provides a substantial impact on the body literatures, this research is limited only based on PISA data which there could be other relationships among variables included in the study. Further investigation is recommended to include other variables to clarify whether there are different effects on science performance, particularly with diverse background of students in Indonesia.

88402 | *Structural Validity of the Career Decision-Making Self-Efficacy Scale for Thai Vocational Students: A Confirmatory Factor Analysis for Career Guidance Development*

Chanchai Yothasoot, King Mongkut's University of Technology Thonburi, Thailand

This study aims to develop a model for Career Decision-Making Self-Efficacy (CDMSE), within the context of Thai society and to examine the alignment of its confirmatory components with empirical data. The study employed Confirmatory Factor Analysis (CFA) with a sample of 508 vocational students from technical colleges in Thailand in 2024. The instrument used was an online questionnaire, Reviewed by experts in psychology. The analysis results indicate that the model demonstrates a high level of alignment with empirical data, as evidenced by the following fit indices:  $\chi^2 = 258.01$ ,  $df = 232$ ,  $P\text{-value} = 0.11589$ ,  $RMSEA = 0.015$ , all of which fall within acceptable ranges. This study has both theoretical and practical implications, confirming the suitability of the CDMSE model within the context of Thai vocational students. It Serves as a crucial foundation for developing an effective career guidance system that enhances vocational students' confidence in making appropriate career choices, ultimately reducing unemployment and addressing the future shortage of skilled labor. It can be concluded that the Career Decision-Making Self-Efficacy Scale for Thai Vocational Students, this study plays a vital role in supporting the development of specialized programs to enhance vocational students' decision-making capabilities regarding career choices. It fosters a deeper understanding of career development within the context of the educational system and labor market demands. The findings from this study can be applied to the design of career guidance curricula, the formulation of education and labor policies, and national workforce planning.



# ACE2024 Pre-Recorded Virtual Presentations

## Foreign Languages Education & Applied Linguistics (including ESL/TESL/TEFL)

82048 | *Tangled Timelines: A Qualitative Exploration of ESL Learners Challenges in Acquiring the English Past Tense*

Ewana Mohamad Yusop, Duli Pengiran Muda Al-Muhtadee Billah 6th Form College, Brunei

Nur Qistin Mohd Harunthmarin, Pengiran Muda Al-Muhtadee Billah 6th Form College, Brunei

This paper aims to discover and identify the challenges encountered by ESL (English as a Second Language) learners in their pursuit of mastering the English past tense. The acquisition of this grammatical aspect constitutes a crucial step in achieving language proficiency, yet it remains a challenge for many non-native speakers. Most ESL students in Brunei sit for the English Cambridge O Levels at the end of their secondary school education and to obtain the highest band in the Writing paper, students must demonstrate highly accurate use of complex spelling, punctuation and grammar. Despite having been taught the past tense rule over their 12 years of studying English, ESL students in Brunei still face difficulties in applying the past tense during assessments. Hence, the main objective of this research was to identify the underlying causes hindering students' application of this grammatical concept, especially during assessments. This exploratory case study uncovered twelve ESL students' challenges of applying the past tense through a self-reflective activity. The students' responses were analyzed using thematic analysis to identify common, recurring themes and patterns. The themes derived from the data were: time limitations, confusions of irregular verbs spelling, lack of practice, and translating of mother tongue to English. The findings have implications for educators, curriculum designers, and policymakers, aiming to inform the development of targeted interventions that can empower ESL learners to navigate the complexities of the English past tense more effectively.

84797 | *The Foreign Language Writing Anxiety of Japanese University Students*

Lidija Elliott, Kwansei Gakuin University, Japan

Skilled academic writing is an obligation for higher education students. Furthermore, students studying English as a foreign language (EFL) find it more difficult when compared to their native English-speaking counterparts. This is because EFL students are expected to understand and write in a language that they are still in the process of learning. This paper aims to explore foreign language writing anxiety among Japanese university students enrolled in an English academic writing course. All of the students enrolled were non-English majors. The study used questionnaires to survey 25 second-year university students to evaluate the challenges causing anxiety while writing academic papers. Based on the findings, the author recommends possible solutions to be used in the classroom. These activities may help students mitigate feelings of anxiety to help learners become better at academic writing, which may lead to greater self-confidence and achievement of language learning goals.

83983 | *Comparative Analysis of Traditional Method of Teaching Academic Writing vs ChatGPT-Method*

Yuliya Babayeva, Maqsut Narikbayev University, Kazakhstan

This study provided a comparative analysis conducted to determine the effectiveness of traditional teaching methods for teaching academic writing versus AI-assisted teaching using text bots such as ChatGPT, where students learned autonomously with pre-prepared prompts. As for a pre-test session, 60 students from Maqsut Narikbayev University were randomly chosen by their intermediate English knowledge. They took the pre-test by writing an opinion essay. After the pre-test session, 30 students volunteered for the experimental group (Group X) that used ChatGPT, while the remaining 30 were in the control group (Group Y), which used traditional methods. The only difference between the groups was in the teaching mode. Two lessons were spent teaching Group X how to write effective prompts to providing successful autonomous learning. In parallel, they had to write self-reflections, while Group Y followed their usual teaching and learning process. After a month-long intervention, both groups took a post-test by writing an essay. Analysis of pre-and post-tests, surveys, observations, and self-reflections showed no significant differences between the two groups' performance. This suggests that both modes of teaching did not significantly impact students' performance during the experiment. Factors like essay type, difficulty level, and personal reasons may have influenced the results. The limited duration of the experiment and its intervention might have also constrained the potential benefits of ChatGPT. A key contribution of this research is its potential to enhance academic writing instruction using AI-assisted tools. Despite these findings, teachers can gain an understanding of the effectiveness of AI-assisted tools like ChatGPT.

85500 | *Bibliometric Analysis and Visualization of Written Corrective Feedback in L2 Writing*

Weihao Shi, Xi'an Yanta No.2 Middle School, China

Written corrective feedback plays a vital role in second language acquisition. It serves not only to enhance learners' language proficiency but also to foster their understanding of grammar rules, structures, and the appropriate use of vocabulary. CiteSpace is a robust tool for literature analysis that facilitates researchers in gaining comprehensive insights into the structure and evolutionary trends of academic fields by visualizing literature networks and analyzing citation patterns. The Web of Science core collection database was used as the primary source for data collection. There were 184 effective articles were selected from 2019 to 2023. In recent years, there has been significant progress in research on written corrective feedback, particularly in the development of automated error correction systems and personalized feedback tools that use machine learning and natural language processing techniques. Researchers are also emphasizing the importance of customized correction strategies tailored to individual learner differences. Additionally, the use of big data and corpora to analyze learner writing data provides empirical support for second language writing teaching. In the foreseeable future, the progression of artificial intelligence technology alongside the facilitation of interdisciplinary research is anticipated to deepen these trends, thereby fostering the ongoing innovation and refinement of teaching methodologies and theories pertaining to second language writing.

# ACE2024 Pre-Recorded Virtual Presentations

88288 | *How Are New Metaphors Created? Evidence from Chinese English Learners*  
Ying He, Nanjing University of Aeronautics and Astronautics, China

For years, Conceptual Metaphor Theory (CMT) has been a cornerstone in metaphor research. However, recent findings in psycholinguistics and neurocognitive science reveal that the creation of novel metaphors is more complex than previously understood. This study conducted a metaphor completion experiment with 60 Chinese university students to examine their metaphor production capabilities. We built a metaphorical corpus containing 170,000 words produced by native English speakers and utilized MIP (VU) and Wmatrix for comparative analysis. The findings are as follows: 1) Second language (L2) learners' metaphor production is primarily influenced by cognitive patterns rather than linguistic proficiency, leading to distinct differences in semantic categories and source domains compared to L1 speakers; 2) The novelty of metaphors is inversely correlated with L2 learners' mastery of basic semantics, suggesting that novelty alone is an insufficient criterion for assessing metaphor quality; 3) Contrary to previous research, mental metaphors exhibit a bidirectional mapping process. Additionally, L2 learners demonstrate both conceptual and grammatical asymmetry within a hierarchical metaphor network, even while being influenced by mother tongue transfer. These findings challenge traditional evaluation standards in language teaching and emphasize the need for refined criteria to assess metaphor quality, which could enhance metaphor recognition and creation in machine learning and AI language models. Furthermore, exploring the cognitive mechanisms and interlanguage differences in metaphor creation can improve concept teaching and facilitate cross-cultural metaphorical communication.

88518 | *Attitudes, Motivation, and Cultural Identity in Learning an Asian Language as a University Entrance Exam Subject in Europe*  
Borui Zheng, University College Cork, Ireland

This study investigates the attitudes, motivation, and cultural identity factors influencing the learning of Chinese as a newly introduced subject within Ireland's Leaving Certificate curriculum. The research examines how students and teachers navigate the challenges of integrating an Asian language into a traditionally European-dominated framework. A mixed-methods approach was employed, with quantitative data collected from 106 students through structured questionnaires, capturing their motivations, attitudes, and perceived challenges. Descriptive statistics revealed trends in motivation and cultural identity. Additionally, qualitative data were gathered from in-depth interviews with 8 students and educators, focusing on their experiences with the curriculum. Thematic analysis identified key issues, including difficulties with cultural questions in exams and the lack of standardized preparation materials. Findings highlight three major challenges: (1) students struggle with exam questions that require cultural knowledge, posing a barrier for those without a strong background in Chinese culture; (2) the absence of standardized textbooks for exam preparation exacerbates learning difficulties; (3) bridging the gap between secondary-level Chinese and university study is difficult due to misalignment between localized teaching and international or Chinese educational standards. Despite these challenges, interest in Chinese is growing, especially among students from non-Chinese backgrounds, signaling potential for wider promotion of Chinese in Ireland. The study recommends developing culturally sensitive teaching resources, improving exam materials, and aligning educational standards to support student progression from secondary to higher education. These findings provide valuable insights for educators, curriculum developers, and policymakers to foster inclusive and effective Chinese language education in Ireland.

## Higher Education

85570 | *Promoting Academic Freedom Under Neoliberal Legal Reform: The Case of Indonesia*  
Pradnya Wicaksana, Institute of Human Rights and Peace Studies of Mahidol University, Thailand

This article examines the legal protection of academic freedom in post-authoritarian Indonesia. It takes a critical stand to the analysis that the increasing attacks on academics during Joko Widodo's presidency are explained as a form of democratic regression. This regression is signified by the increasing government control of higher education institutions (HEIs) through acts of repression and bureaucratization, thus undermining academic freedom. Conversely, this article argues that the hostile academic environment is a product of a failed neoliberal higher education reform that occurred after the fall of the authoritarian New Order regime. By aiming to strengthen the institutional autonomy of HEIs, neoliberal reform was rationalized as a means to promote academic freedom that was previously subjugated by bureaucratic and military apparatuses. This article demonstrates how, like many other aspects of neoliberal reform in Indonesia, higher education reform was hijacked by dominant predatory forces established during the New Order regime - leading to the continuation of centralist and predatory HEI governance in the Reform era. This continuation explains why academic freedom's legal protection remained weak. The article elaborates on this weakness in two forms: (1) the conservative and depoliticized individual legal protection of academics inherited from the New Order regime; and (2) the usage of neoliberal principles to sustain state intervention and politicization of HEIs.

85591 | *The Effect of Spotify for Podcasters on EFL Tertiary Students' Speaking Skills*  
Ni Luh Putu Ning Septyarini Putri Astawa, Primakara University & Universitas Pendidikan Ganesha, Indonesia  
Luh Putu Artini, Universitas Pendidikan Ganesha, Indonesia  
Putu Kerti Nitiasih, Universitas Pendidikan Ganesha, Indonesia  
Made Hery Santosa, Universitas Pendidikan Ganesha, Indonesia

Spotify, one of Indonesia's most popular digital streaming platforms, holds a significant market share of approximately 56%, comparable to Apple Music, JOOX Music, and YouTube Music. Spotify for Podcasters, as part of Spotify, was designed specifically for podcast creators. Despite its widespread usage, research exploring its potential for educational purposes to enhance English language learning, especially in the EFL (English as a Foreign Language) context remains limited. This embedded mixed-method study investigated the effect of using Spotify for Podcasters on EFL students' speaking skills and its influence on students' learning process. Twenty-eight first-semester tertiary students in Bali-Indonesia were involved in this study. The quantitative data of this research were collected using speaking tests, while the qualitative data were collected using open-ended questionnaires. To analyze the quantitative data, the researchers applied a paired sample t-test, while the qualitative data were analyzed descriptively using Miles and Huberman's model. The result of this study showed a significant influence of Spotify for Podcasters towards students' speaking skills. In addition, this study also proved that the use of Spotify for Podcasters supports students' learning by influencing their creativity, problem-solving, collaboration, and technological skills. Thus, this study supports the utilization of Spotify for Podcasters to enhance EFL tertiary students' speaking skills and learning process.

# ACE2024 Pre-Recorded Virtual Presentations

88429 | *How Can We Integrate Generative AI into First-Year Education to Promote Awareness of Diverse Perspectives?*  
Tomoya Hashimoto, Osaka Metropolitan University, Japan

In this study, we explored effective ways to integrate dialogue with generative AI into first-year education courses to help students recognize the importance of diverse perspectives. In addition to traditional dialogues among students, we examined whether engaging in dialogue with generative AI, considered as an “other”, could enhance awareness of the value of multiple perspectives. For the analysis, we utilized both quantitative and qualitative data from surveys conducted before and after the activities. The results of the analysis suggested that engaging in dialogue not only with humans but also with generative AI could enable students to quickly gain unexpected ideas and directions that are not rooted in personal experiences, potentially broadening their perspectives. Additionally, descriptions of dialogues among humans indicated that ideas developed based on mutual experiences. This suggests that combining dialogues among humans with dialogues involving generative AI could further enhance the recognition of the importance of diverse perspectives, rather than relying solely on dialogue with generative AI.

88428 | *Aesthetic Education Through Teaching Japanese Literature and Cinema at the Ho Chi Minh City University of Education in Vietnam*  
Thu Van Phan, Ho Chi Minh University of Education, Vietnam

In recent years, along with the strengthening of friendship and international cooperation between Vietnam and Japan, many novels and short stories from Japanese literature have been translated and introduced to Vietnam, and well received by Vietnamese readers. In addition, Japanese cinema has gradually conquered Vietnamese audiences, through film festivals, the recognition that comes with earning international awards, as well as official screenings at domestic cinemas. The use of films adapted from Japanese literature to further promote the reception of literature among young people is also recognized as a new trend of the times. To better reflect these current trends and and promote the development of the aesthetic sense of youth in general and students, at the Faculty of Literature of the Ho Chi Minh City University of Education in particular, we have developed new subjects for our Master's Program in Foreign Literature such as *The Relationship between Literature and Cinema* (2016 - 2022), *Literature and Cinema* (2022 - 2026). Through the subjects and teaching activities, we have exposed students and Master's students to the subject matter related to Japanese aesthetics, including concepts such as wabi, sabi, yugen, etc.; Japanese identity expressed through literature and cinema as well as a variety of other content. This article summarizes the method of aesthetic education through utilized in teaching Japanese literature and cinema at the Faculty of Literature, Ho Chi Minh City University of Education (Vietnam), while also emphasizing the importance of aesthetic education and proposing new approaches to aesthetic education for students.

87535 | *Toward Society 5.0 and the Development of STEAM Problem Solving Competencies*  
Damian Rivers, Future University Hakodate, Japan

Higher education is anticipated to play a pivotal role in realizing Society 5.0, a vision set forth by the Japanese government to address rapidly shifting social paradigms and challenges. This vision aims to foster an inclusive society that prioritizes diversity, fairness, individual dignity, and various aspects of well-being. Consequently, the skills and competencies required of university students are evolving under multiple domestic and international influences. However, one of the most consistently demanded skills for employment remains complex problem-solving (World Economic Forum, 2016, 2020). Although the government has emphasized the “need for interdisciplinary education to resolve social issues through the comprehensive application of knowledge across the wide-ranging fields of science, technology, engineering, arts, and mathematics (STEAM)” (Government of Japan, 2022), many higher education institutions remain structured based on subject-specific knowledge. This immediately limits the ability of students to understand complex problems from a variety of integrated perspectives. STEAM approaches to problem-solving strive to integrate scientific-technological, artistic, and humanistic competencies, moving beyond interdisciplinarity to embrace the kind of transdisciplinarity required for future society. In anticipation of the international launch of the Society 5.0 vision at the Osaka-Kansai Japan World Expo 2025, this poster presentation underscores the need for greater transdisciplinary collaboration in higher education as it relates to the development of complex problem-solving competencies from a STEAM perspective. The presentation highlights current trends, opportunities, and areas for improvement, with a focus on educational experiences that best support current and future university students within the context of Society 5.0.

88550 | *Embracing AI in Academia: Developing Ethical Guidelines Through Collaborative and Emotional Engagement*  
Alina Chirciu, Sultan Qaboos University, Oman

This paper documents the comprehensive and collaborative process undertaken by the AI team at the Centre for Preparatory Studies, Sultan Qaboos University, Sultanate of Oman, to develop AI guidelines for students and teachers. The initiative was structured across two academic semesters—Fall 2023 and Spring 2024— that included a series of collaborative tasks crucial to the development of these guidelines. Central to this process was a collaborative literature review, which laid the groundwork for understanding AI integration in education. This review was supplemented by focus group meetings where the team evaluated prominent AI guidelines from leading universities worldwide, ensuring that global best practices were tailored to the specific context of SQU. Continuous assessment reviews were also conducted to identify potential AI vulnerabilities in the educational framework, thus ensuring the guidelines were both theoretically robust and practically viable. The process also sparked discussions on rethinking academic integrity in the age of AI. The emotional labor involved in this journey is also explored, as educators navigated the complexities of AI, experiencing feelings of both acceptance and uncertainty. The challenge of addressing student cheating using AI tools further complicated this process, necessitating a careful balance between embracing technological innovation and preserving academic integrity. Testimonials from minute meetings and interviews with AI team members provide a deeper understanding of the personal and professional challenges faced during this journey, offering insights into the dynamic and multifaceted nature of embracing AI in education.

# ACE2024 Pre-Recorded Virtual Presentations

85491 | *What Doctoral Examiners Should Know About Purpose-Driven PhD Viva*  
Wee Chun Tan, Universiti Putra Malaysia, Malaysia

Despite the importance of the PhD viva in assessing the quality of doctoral research, how examiners approach the PhD viva remains underexplored in the Global South. This study fills this gap by investigating the conceptions of doctoral examiners in Malaysia, shedding light on how they approach the PhD viva and what they believe its key purposes are. Through qualitative thematic analysis of interviews with 12 examiners, this study reveals that examiners place a significant emphasis on the quality of the research thesis, empower candidates to demonstrate mastery of the research subject, initiate dialogue for research engagement, and foster socialisation within the disciplinary community. The study contributes to the conceptualisation of the purposes of the PhD viva, encompassing gatekeeping, empowerment, dialogue, and enculturation, which can provide valuable guidance for examiner practices. The implications of these findings are discussed, highlighting the facilitative role of examiners in the examination process.

## Interdisciplinary, Multidisciplinary & Transdisciplinary Education

83318 | *Benefits of Orff Music Intervention in Improving Auditory Response and Auditory Learning Ability for Preschool Children*  
Chichi Wei, Chang Gung University, Taiwan  
Yen-Yu Chen, National Kaohsiung Normal University, Taiwan

Music training has been proven to promote auditory reaction and auditory learning ability, but this theory has not been explored in preschool children in Taiwan. Based on Orff Schulwer, this study developed a set of Orff music intervention suitable for the improvement of auditory reaction of preschool children in Taiwan, and developed a test of auditory reaction and auditory learning ability as a pre-test and post-test, to explore whether the Orff music intervention is suitable for preschool children to improve their auditory reaction, and to seek the correlation between auditory reaction and auditory learning ability. The results of this study show that the faster the auditory reaction, the better the auditory learning ability, which is not only applicable to children over 7 years old and adults, but also applicable to children under 7 years old, and related to the auditory learning performance of preschool children. It is suggested that early childhood educators or parents (caregivers) can use the Orff Schulwer method to improve the auditory reaction and auditory learning ability of preschool children from the perspective of music.

## International Education

86029 | *A Comparison of Visual Representations of Integer Operations in Middle School Mathematics Textbooks in the Turkish and United States*  
Ali Sabri Ipek, Recep Tayyip Erdoğan University, Turkey

Textbooks are the main teaching material in mathematics, as in other subjects, and this is one of the main reasons for analysing mathematics textbooks. Despite the growing interest and reliance of teachers and students on visuals in textbooks, further information about representations is needed. The visualisation of mathematical concepts has always been a critical issue in teaching and learning processes due to their abstract nature. Hence, analysing visual representations brings with it the necessity to examine the learning and teaching opportunities that mathematics textbooks offer to both students and teachers. Visual representations are widely used in mathematics textbooks to facilitate students' understanding of integer operations, which they have difficulties with. The study comparatively analysed the visual representations of integers operations in Turkish and United States mathematics textbooks through content analysis using the visual representation analysis scheme in mathematics textbooks, which was formed from three categories considering the related literature. Findings of the study revealed that there were no statistically significant differences in the visual representations of the two countries' textbooks in operations with integers. Visual representations are generally used for problem solving purposes and in the role of organisation in both Turkish and United States textbooks. However, diagrams (about 44%) are more dominant in Turkish textbooks, while pictures (about 30%) and manipulatives (about 28%) are more dominant in United States textbooks. The findings are discussed in terms of mathematics curriculum developers, teachers and researchers to improve the effectiveness of textbooks on teaching and learning.

## Knowledge Creation, Preservation & Access

88032 | *Exploring Self-Determination Motivation and Creativity Among Elementary School Students in Knowledge-Building Environments: A Case Study of the SDG4 Curriculum*  
Fang Cheng Yeh, National Taichung University, Taiwan  
Li Ting Tse, National Tsing Hua University, Taiwan

The goal of education is not limited to imparting fixed knowledge. Especially when facing the challenges of SDGs, education should focus on fostering students' creativity and problem-solving skills. However, the lack of autonomous learning environments leads to decreased student motivation. This study designs a curriculum centered around SDG 4 and incorporates a Knowledge-Building environment, aiming to enhance students' self-determination motivation and foster creativity. This study employs a mixed-methods approach with 26 third-grade elementary students as participants. The students are required to explore current educational issues and design a classroom model over a 12-week period. The results revealed that (1) The amount of Knowledge-Building activities significantly increased in the later stages, with students actively reading and integrating ideas from the community to generate new ideas. (2) Students' self-determination motivation significantly increased, encompassing autonomy, competence, and relatedness. Relatedness was particularly prominent in environments of knowledge sharing and community collaboration. (3) In terms of creativity, fluency and flexibility decreased, while originality and elaboration significantly improved in the later stages. Students converge community ideas to enhance the quality of ideas. (4) In the affective dimension of creativity, curiosity stabilized, while imagination, risk-taking, and challenge significantly increased in the later stages. Students collaboratively brainstorm, experiment, and solve problems. (5) The classroom model designs by the groups included plans for ecological zones, learning areas, and considerations such as volume, safety, and lighting. They emphasized gender equality and anti-bullying signage, showcasing their creativity. Based on these findings, recommendations are made for applying Knowledge-Building environments in SDGs education.



# ACE2024 Pre-Recorded Virtual Presentations

## Learning Experiences, Student Learning & Learner Diversity

84186 | *Online Learning: Perceptions of the First-year B.Ed Students at the Free State Province University in Bloemfontein*

Ndoyisile Moses Majola, Central University of Technology, South Africa

Judith Gabisile Hlumbane, Central University of Technology, Free State, South Africa

In this empirical study we argue that immediate attention is required to ensure that B.Ed. first-year students at the university of technology in the Free State province successfully take part in online learning. The problem underpinning this study is that these students face difficulties in learning online. The study is couched in Connectivism Learning Theory which assumes that knowledge is individual and constitutes of a network which feeds into educational institutions, which in turn feeds back into the network, and then provide learning to the individual enabling students to remain current in their field via connections they formed. This is a quantitative paper which responded to two questions; what challenges do first-year B.Ed. students experience regarding online learning and how can these challenges be mitigated? The study used questionnaires to collect data. Purposive sampling was used to select 200 participants who were exposed to online teaching for the first time in their educational journey. Thematic data analysis was conducted to analyse data collected. The study found out that first-year students lamented on the lack of understanding of online learning.

84497 | *Student-Faculty Partnerships in Asia – Exploring Possibilities, Challenges, and Examining Values: A Case Study*

Siew Leng Verily Tan, National University of Singapore, Singapore

The evolving landscape of higher education emphasizes the transformative role of students as partners (SaP) in the learning process, challenging the consumption model with a participatory one. The concept is more mature in Western settings and this paper seeks to provide an Asian perspective. The study is situated in one of the top Asian universities. This qualitative case study delves into the experiences of undergraduate students involved in a program where they collaborated with faculty supervisors to teach their undergraduate peers and receive academic units in return. A total of ten students and three faculty participated in the research. The qualitative research methodology involved post-program data collection through 45-minute audio interviews which were later transcribed. Coding was conducted by two research investigators and a research assistant with inter-rater agreement. Eight out of ten students indicated satisfaction with the programme. We further examined themes related to the principles of partnership or SaP (Healy et al., 2004). Relating to the framework, positive experiences were linked to themes of empowerment, trust, and responsibility. However, there was a lack of community and a lack of challenge. Findings point to difficulties in developing partnerships through communication and dialogue in the co-creation process of student engagement and partnership. Meaningful collaborations take place when students become active participants, co-constructing understanding and resources with faculty (Bovill et al., 2016). Within the Asian context, such partnerships may challenge the traditional roles of student and instructor where Confucianism values of respect, obedience, and deference are prevalent (Dai et al., 2021).

85037 | *Emotional Responses of Taiwanese English Major Students to EMI Courses Taught by Native English-Speaking Teachers*

Chin-Hui Chen, National Pingtung University of Science and Technology, Taiwan

Zih-Ying Chen, National Pingtung University of Science and Technology, Taiwan

Shu-Wen Lan, National Pingtung University of Science and Technology, Taiwan

With the drive for increased internationalization, the Taiwanese government has expanded English as a Medium of Instruction (EMI) courses in higher education. English major students are particularly exposed to these courses. To understand their emotional responses, the authors conducted a survey completed by 200 Taiwanese English major students for the purpose of examining their feelings towards EMI courses and how their past English learning experiences influenced their positive and negative emotional reactions. The findings suggest that participants generally experienced more positive than negative emotions towards EMI. Students who majored in English in senior high school and had previous EMI course experience perceived EMI more positively and less negatively compared to those who did not. Additionally, students who had been taught by native English-speaking teachers showed stronger positive and negative emotions towards EMI than those who had not. These findings have implications for EMI teachers, suggesting they should consider students' past learning experiences to better address their emotional responses.

85541 | *Unveiling Religious Identity in Virtual Classrooms: Insights and Impacts*

Jennifer Fabula, De La Salle-College of Saint Benilde, Philippines

Karl Salvador, De La Salle-College of Saint Benilde, Philippines

The shift to learning in universities, especially following the pandemic, has led teachers to adopt classes for religious education, a course traditionally taught face-to-face. This research study utilized a mixed-method approach through surveys completed by 308 college students at a Catholic institution and in-depth interviews with 27 participants. The interviews were analyzed using a thematic approach to uncover four themes: embracing adaptability and introspection, fostering connections beyond physical boundaries, expanding spiritual perspectives, and addressing technological hurdles. These results reveal a link between learning and religious identity development, offering valuable insights for educators seeking to enhance digital religious education. Recommendations include conducting studies to track the evolution of religious identity in an online learning setting and understanding the lasting impact of virtual religious education over time.

# ACE2024 Pre-Recorded Virtual Presentations

85538 | *Beyond Content: Exploring the Impact of Team Characteristics in Effective Project-Based Learning*

Low Bee Lee, Singapore Polytechnic, Singapore  
Desmond Ng, Singapore Polytechnic, Singapore  
Heng Jun Jie, Singapore Polytechnic, Singapore  
Low Kang Min, Singapore Polytechnic, Singapore

Project-based learning (PBL) is a pedagogy that is widely adopted for its authentic, complex and collaborative learning experience. Many studies have shown that team effectiveness (TE) plays a pivotal role in determining the success of project outcomes. Effective teams are generally characterised by shared goals, clear communication, mutual respect and a commitment to collective success. This paper aims to study the specific mechanisms and conditions that optimally enhance team performance in PBL. It highlights the importance of effective team processes and team dynamics, including appropriate deployment of decision-making and conflict resolution strategies, task assignments, team feedback and reflections, in conjunction with the cohesive integration of each member's contribution with a growth mindset towards the development and assessment of team competencies. Furthermore, it also explores the role of project supervisors in fostering team effectiveness through providing structured guidance, constructive feedback and appropriate resources to students. The framework of fostering a positive team culture is evaluated by four dimensions of Team Motivation (TM), Team Structure (TS), Team Dynamics (TD) and Team Excellence (TE), is proposed to foster for the project delivery. Empirical evidence inferred from their strong positive Spearman's co-relationships ( $p > 0.82$ ) confirms the proposition that team characteristics are interrelated and mutually reinforcing for the facilitation of successful PBL learning outcomes.

88370 | *Effectiveness of Game Based Teaching in Topic of Human Resource Management for Vocational College Students*

Tiamyod Pasawano, Rajamangala University of Technology Thanyaburi, Thailand  
Tan Qiulan, Rajamangala University of Technology Thanyaburi, Thailand

The research objectives are as follows: 1) to design a game-based teaching technology course suitable for students and verify the effectiveness of student learning outcomes after game-based learning, 2) to explore the methods and techniques for promoting student learning in human resource management classes, thereby quickly bringing human resource talents to enterprises and helping to achieve the enterprise's long-term development goals, and 3) to contribute to the popularization of game-based teaching. The sample in the study was 64 students in two classes of Guangxi Peixian International Vocational College, China. The research sample was selected by Simple random sampling method. The instruments consisted of a questionnaire survey form, Interviews, pre-test questionnaires for the human resource management major, and post-test questionnaires for the human resource management major. Statistics used for data analysis were Mean, Standard deviation, Difference in scores 4. Square of the difference in scores, and Effectiveness index. The results revealed that in the human resource management major, the score before and after game teaching assumes that the relevant samples are drawn from two normal distributions, and the overall difference is also normally distributed. The average of game-based teaching techniques in human resource management courses consisted of pre-test (76.68), post-test (80.85), difference value 142, difference value square 644.

88882 | *The Impact of Parental Coping Mechanisms on Adolescent Sexual Behavior*

Sakinah Salleh, Sultan Idris Education University, Malaysia  
Norhafiza Mohd Hed, Sultan Idris Education University, Malaysia  
Alwi Mohd Yunus, Universiti Teknologi Mara UiTM, Malaysia  
Fatin Farhanah Ammer, Sultan Idris Education University, Malaysia

Current challenges such as the decline in ethics and morals, including premarital sex, LGBT issues, and pornography addiction among teenagers in Malaysia, are becoming increasingly concerning, with numbers on the rise. Sexuality remains a taboo subject in society, leading to limited discussions on these issues. Consequently, this study aims to identify the shortcomings in parental coping mechanisms that contribute to adolescent sexual issues. This research employs a qualitative methodology by interviewing two teenagers and three parents, as well as doing library research. The findings highlight several areas where parental coping mechanisms may fail in addressing adolescent sexual issues: a) monitoring of gadgets and activities, b) parenting styles, c) family communication, d) religious education, and e) family time. The need for effective parental coping strategies is crucial in providing proper sexual guidance to teenagers. The implications of this study can help parents become more effective in addressing adolescent sexuality issues and offer valuable input to the Social Welfare Department (JKM) in developing training, services, and guidance for the community.

87509 | *The Role of Personalized Companionship in Chinese Family Education: Practice and Reflection of Child Growth Companions*

Mengjie Ma, Guangzhou Xinhua University, China  
Jiawei Tian, China Europe International Business School, China  
Jiani Yang, Guangzhou Xinhua University, China

This study aims to delve into the role and impact of the emerging profession of "Child Growth Companions" (referred to by Chinese netizens as "Divine Beast Companions") in modern Chinese family education. With the development of the social economy and changes in family structure, the importance of family education has become increasingly prominent, and Child Growth Companions, as an emerging force in family education, have attracted increasing market demand and attention. This paper first analyzes the background of the rise of the Child Growth Companion profession, market demand, and social recognition. Subsequently, using in-depth interviews and case analysis, the paper explores the companionship methods of Child Growth Companions in children's learning, sports, and play, as well as the positive impact of these methods on children's habit formation and personality development. In the research, Erikson's theory of psychosocial development is applied to analyze the companionship strategies and effects of Child Growth Companions at different stages of children's development. The study finds that Child Growth Companions have significant advantages in providing personalized companionship and promoting the comprehensive development of children, but there are also potential issues, such as the uneven professional quality of companions and the possibility of companionship methods replacing the role of parents. Finally, this paper puts forward regulatory suggestions for the Child Growth Companion industry, including improving the professional training of companions and clarifying the boundaries between the roles of companions and parents, to promote the healthy development of the industry and provide a beneficial supplement to family education.

# ACE2024 Pre-Recorded Virtual Presentations

## Mind, Brain & Psychology: Human Emotional & Cognitive Development & Outcomes within Educational Contexts

85240 | *A Study of the Relationship Between Attachment, the Perception of Consulting, and Help-seeking Behavior Among College Students*  
Kumiko Yoshitake, Nagasaki Junshin Catholic University, Japan  
Takeshi Sato, Nagasaki Junshin Catholic University, Japan  
Yuki Inoue, Nagasaki Junshin Catholic University, Japan

When faced with a problem that one cannot handle alone, consulting others is an important and adaptive help-seeking behavior. However, there are also inappropriate help-seeking behaviors, such as excessive help-seeking behaviors that rely on others even for trivial matters and avoidance behaviors that do not request help from others even when it is necessary. Nagai (2017) found that high levels of anxiety and avoidance in attachment were associated with help-seeking avoidance behavior. We hypothesized that the way people with attachment problems perceive the help-seeking behavior of consulting results in not consulting others. We examined the relationship between attachment and the perception of the cost of consulting others.

Methods: Subjects were 117 college students (27 males, 90 females, 1 unknown). ECR-RS-GO attachment scale (Nakao, Murakami, & Kazui, 2019), Benefits and Costs of Consultative Behavior Scale (Nagai & Arai, 2008), and Free description etc.

Results and Discussion: According to the results of multiple regression analysis, both high anxiety and high avoidance in attachment influenced how they perceived the cost of consulting. They tended to perceive 1) that if they consulted, they would receive a negative response from the other person ( $p < .01$ ), 2) that they would be divulging secrets ( $p < .01$ ), and 3) that consulting would result to an admission by themselves that they were weak ( $p < .01$ ). Moreover, only 3) Perceiving that to ask for help is to lower one's self-esteem inhibited help-seeking behavior ( $p < .01$ ). Therefore, we discussed what is needed to seek help based on the free responses.

88460 | *A Systematic Review of Teachers' Emotions on Educational Outcomes*  
Yu-Jui Cheng, Ludwig Maximilian University of Munich, Germany  
Anne Christiane Frenzel, Ludwig Maximilian University of Munich, Germany

The influence of teachers' emotions on students' educational outcomes has received increasing scholarly attention in recent years. Despite this growing interest, a systematic review addressing the specific impacts of teachers' emotions on student outcomes remains absent in the literature. This review seeks to fill this gap by synthesizing existing evidence on the relationship between teacher emotions and educational outcomes. Following the PRISMA guidelines, we conducted a comprehensive search of ProQuest and ERIC databases for records published since 2015. The inclusion criteria for selected publications were: (1) peer-reviewed articles published in English or Chinese, and (2) empirical studies. Publications were excluded if they did not meet the following criteria: (1) non-empirical studies, (2) written in languages other than English or Chinese, and (3) duplicates. This process yielded 3,423 records, from which 21 papers were deemed eligible for inclusion. Preliminary analytical results indicate that teacher emotional exhaustion and boredom negatively impact student academic performance and motivation, with burnout affecting learning outcomes through teaching quality and engagement. By providing a comprehensive overview of the existing literature, this review aims to enhance understanding of teachers' emotions' role in shaping students' educational outcomes and to inform future research directions in this important area.

87187 | *Using Emotional and Multiple Intelligences to Predict Graduate Online Students Connectedness*  
Loren Naffziger, Grand Canyon University, United States

The COVID-19 pandemic accelerated the use of online learning in all areas of academia. Colleges were thrust into converting on-ground classes to online venues, creating a need to examine the needs of the learners differently. What is not known is how different intelligence strengths can influence the students' ability to connect to their online learning environment is fundamental to their success (Bollinger & Merindale, 2004). Carthy et al. (2022) noted that the need for student support in online education included the coaching of emotional intelligence (EI) strategies, which the participants in the study reported as having a positive effect on academics. The connection between EI and the theory of multiple intelligences is pronounced, especially in exploring Gardner's definitions (Gardner, 2006) of interpersonal and intrapersonal intelligences, which correspond with the interpersonal skills and self-awareness constructs of EI (see Goleman, 2005). Using the theoretical foundation of the Community of Inquiry (Garrison et al., 2010), the researcher poses the premise that it is not known if, or to what extent, emotional and multiple intelligences predict graduate school students' sense of connectedness in their online learning coursework. A quantitative predictive correlational study involving online graduate school students from a large university is proposed for the study. The use of a regression analysis procedure using the statistical package for the social science (SPSS) software will provide an analysis of the correlation between the major domains of emotional and multiple intelligences as predictors of graduate school students' sense of connectedness in their coursework.

87318 | *Why Am I in Such Pain? Graduate Research Anxiety and Its Influencing Mechanisms: A Case Study of Chinese Universities*  
Huihui Fan, Shandong University of Engineering Vocational Technology, China  
Yujie Ma, University of Birmingham, United Kingdom  
Jian Xu, Qiulongtai Kindergarten; Affiliated Early Childhood Education Group; Shenzhen Guangming Institute of Education Sciences, China

Anxiety is one of the important factor that affects the cultivation of academic competence. During the process of academic writing and publication, graduate students often experienced anxiety. However, it was still unclear about how this anxiety was generated among graduate students. This study, based on the control-value theory of academic emotions, explored the four stages of anxiety development and its influencing factors during the research process of graduate students. 12 graduate students who majoring in Education at Tianjin University of Technology and Education were interviewed in this study. The finding showed that these students exhibited states of utilitarian anticipation, distress, gambler's mentality, and low-desire anxiety in the four stages of preparation, writing, submission, and acceptance, respectively. These emotional changes were characterized by situational, cumulative, and developmental features, gradually leading to emotional exhaustion. The study indicated that academic motivation and psychological capital (individual factors), along with academic and emotional support (task and environmental factors) and academic value evaluation (evaluation factors), collectively influenced anxiety in research among graduate students.

# ACE2024 Pre-Recorded Virtual Presentations

## Nurturing Creativity & Innovation: New, Innovative & Radical Education

85163 | *Can Individuality Be Taught?: The Paradox of the Culture Industry and Holistic Education in Singapore*  
Venus Ke Xin Pei, Nanyang Technological University, Singapore  
Xin Er Lin, Nanyang Technological University, Singapore

Can individuality be taught? This paper explores the paradoxical relationship between Singapore's holistic education model and the culture industry's impact on Singapore in today's digital age. Education in Singapore has evolved from a largely pragmatic curriculum in the nation building years to a more holistic framework in recent years. Even though this is the case, does holistic education necessarily mean a less pragmatic one? This holistic approach encompasses the nurturing of character, creativity, and critical thinking skills alongside strong academic foundations. However, how much of our holistic education system focuses on cultivating a strong sense of self and identity among students? This paper investigates how these seemingly contrasting forces – a holistic education system and a commercially-driven pragmatic society and the pervasive influence of the digital age – coexist in Singapore and the potential impact this has on young minds. Rigid definitions of success limit individuals' critical thinking skills, binding them to conform to uniformity, stunting creativity in the long run. The paper concludes with recommendations for enhancing the current educational landscape. It advocates strategies that promote individual autonomy in critical thinking and foster a sense of ownership in students' learning journey, thereby creating dynamic learning spaces where creativity flourishes.

## Primary & Secondary Education

88174 | *Harnessing Student Culture Within the Classroom*  
Jill Tussey, Buena Vista University, United States  
Leslie Haas, New Uzbekistan University, Uzbekistan  
Michelle Metzger, Buena Vista University, United States  
Jessy Bibler, Buena Vista University, United States

The student population of classrooms continues to change so school structures need to reflect this change. Garibay (n.d.) shares that "meaningful engagement with diverse peers and exposure to diversity issues in the curriculum prepares students for life in an increasingly complex and diverse society" (p. 6). Educators can provide cultural support to all students during lessons as well as embedding culturally diverse resources into the physical classroom. Family involvement with a focus on sharing information about traditions and background is one way to highlight culture while seamlessly increasing a connection between school and home. Our main focus of the presentation will answer the question "Why and how can I increase culture in my classroom and lessons?" The presenters will share classroom projects with resources and activities that can be utilized in the attendee's own classroom. Activities, books, technology, and movement challenges tied to embracing student culture in the areas of literacy, mathematics, and physical education will be shared. As former educators in the K-12 setting, we have seen the benefits associated with increased focus on embracing different cultures. While the target audience for this presentation is elementary educators, activities can be adapted and enhanced for older grades. Educators who teach in higher education can attend, then share content, knowledge, resources, and materials with pre-service teachers.

87743 | *Do the Board Games Effect the Primary School Readiness of Children in the Pre-school Period?*  
Bengü Türkoğlu, Necmettin Erbakan University, Turkey

The aim of this research is to seek an answer to the question "Do the Board Games Effect the Primary School Readiness of Children in the Pre-school Period?" Board Game Based Education Program (BGBEP) consisting of 12 games was prepared in order to improve the readiness level of children who are 5 years old children attending a private pre-school education institution. A quasi-experimental model with pretest/posttest control group was used in the study. The dependent variable of the study is the school readiness of preschool children, and the independent variable whose effect on this variable is investigated is BGBEP. The experimental group of the research consists of 24 and the control group consists of 24, a total of 48 preschool children. Children attend to a private pre-school in Konya, in Turkey during 2023-2024 school year. As a data gathering tool, Metropolitan School Readiness Test (MSRT) was used. In order to evaluate school readiness level of children, MSRT was administered to whole children as pre-test. BGBEP prepared by the researcher was applied "regularly and controlled" to the children in the experimental group in addition to experience in their environment during 4 weeks, 5 days a week and 2 hours per day that's totally 40 hours by the researcher. Children in the control group continued their own education program. After the application of the BGBEP, MSRT was administered to whole children as post-test. Data analysis continues so the results of the study will be discussed in the presentation at the conference.



# ACE2024 Pre-Recorded Virtual Presentations

87424 | *Impact of Random Grouping in Cooperative Learning on Elementary Students' Engagement: A Case Study of SDGs Curriculum*

Li Ting Tseng, National Tsing Hua University, Taiwan

Yu Tseng, Pantau Elementary School, Taiwan

In the past, collaborative learning has often used heterogeneous grouping based on student abilities. In contrast, random grouping treats students equally, bridging ability gaps. This method promotes diverse interactions and helps develop global perspectives and cross-cultural communication skills. This study investigates the impact of random grouping on elementary students' participation, analyzing its educational significance and applications. Employing a mixed-methods approach, the study involved 26 third-grade elementary students and 1 teacher. Students engaged in four weeks of random group discussions centered around SDGs topics, culminating in project proposals. Findings revealed: (1) Random grouping significantly enhances students' confidence, willingness to collaborate, and satisfaction, fostering adaptability and flexibility in interdisciplinary cooperation. There is room for improvement in communication skills, creativity, and adapting to group dynamics. (2) Random grouping notably boosts students' learning vigor, contribution levels, and focus, with self-assessment scores showing weekly improvement. However, improvements are needed in communication smoothness and collaborative abilities, requiring increased guidance and support. (3) Case analyses demonstrate that random grouping significantly impacts the quality of elementary students' work, promoting diverse ideas and demonstrating improvements in representation, creativity, and structure. (4) Social network analysis reveals that students with high centrality reflect higher flexibility and inclusivity in reflecting and adjusting their peer interaction patterns. Students with low centrality require more support to develop social skills, while those with moderate centrality exhibit promising developmental potential benefiting from diverse perspectives and maintaining stable social relationships. Based on these findings, recommendations are proposed for implementing random grouping strategies in elementary education.

## Professional Training, Development & Concerns in Education

85635 | *Predictors of Performance in Licensure Examination for Teachers: A Structural Equation Modeling Approach*

Arsenio Gardoce, Jr., Bartolome Sangalang National High School, Philippines

One of the set targets by 2030 of the United Nations is to substantially increase the supply of qualified teachers. In the Philippines, a valid professional license and a valid certificate of registration are required before a person is allowed to practice as a professional teacher. The national passing rates in the Licensure Examination for Teachers (LET) from 2015 to 2019 indicated that the majority of secondary education graduates are not qualified to practice in the field. Previous studies investigated factors affecting LET performance. However, a limited number of studies investigated structural models on the predictors of LET performance. This study used the Partial Least Squares-Structural Equation Modeling (PLS-SEM) approach to examine the effects of academic performance, practice teaching performance, self-efficacy, and test anxiety on LET performance. It also examined the mediating effect of practice teaching performance on the relationship between academic performance and LET performance. An online survey through a Google form was carried out with a sample of 63 graduates of Bachelor of Secondary Education from two Teacher Education Institutions in Nueva Ecija. WarpPLS 7.0 was used to analyze the measurement and structural models. The results indicated that (1) academic performance, practice teaching performance, self-efficacy, and test anxiety predict LET performance, and (2) practice teaching performance mediates the effect of academic performance to LET performance. This study proposes a structural model for the predictors of LET performance, in which the interrelationship of the factors is significant, and in addition, has meaningful predictive accuracy.

## Teaching Experiences, Pedagogy, Practice & Praxis

84742 | *Profiling English Language Learning Anxiety of Selected Rural Area Secondary School Students in Kedah: A Case Study*

Aini Syahira Jamaluddin, Albukhary International University, Malaysia

Aina Yasmin Mohd Amin, Albukhary International University, Malaysia

Nurul Huda Hassan Bakri, Albukhary International University, Malaysia

The decline in English proficiency among Malaysians is a subject of ongoing debate, with various potential causes being extensively discussed. However, the role of English language anxiety, an internal factor affecting learners' listening and speaking skills, is sometimes overlooked. An investigation was conducted among secondary school students in Kedah, a state in Malaysia, where the schools were inadequately equipped with basic resources and facilities. A total of 866 students who were not taking national examinations from six different schools were selected. They were administered a questionnaire comprising various foreign language anxiety surveys, measuring their anxiety levels in the English language classroom across the four language skills (reading, listening, speaking, writing). The results were analyzed, and a correlation between listening anxiety and speaking anxiety was established. This finding suggests that reducing anxiety in one skill could potentially lower anxiety in the other, thereby reducing the time required to manage English language classroom anxiety. However, further studies are necessary to validate these results.

# ACE2024 Pre-Recorded Virtual Presentations

84141 | *Literature Review of the Impact of Strength and Plyometric Training on Basketball Performance*  
Jun Wan, Jiangxi University of Software Professional Technology, China

This paper aims to provide an extensive literature review of academic papers written in English about the impact of strength exercises on basketball performance across different educational and training institutions. Resistance training, also known as strength training or weight training, involves using resistance to muscle contractions to enhance strength, anaerobic endurance, and muscle size, and plyometric training enhances neuromuscular coordination by training the nervous system, making movements more automatic during activity, resulting in improved performance. This article comprehensively reviews and evaluates basketball players' strength and plyometric training methods, offering valuable insights and references for scientifically enhancing their shooting, dribbling, and speed performance. The literature review found several key insights into the effects of strength and plyometric training on basketball players. Previous research highlighted that plyometric training (PT) effectively enhances agility, and functional strength training was found to significantly boost lower limb explosive power. Combining strength and plyometric training improved vertical jump performance and reduced injury risk. Core training improved endurance and balance but had limited sport-specific effects. Overall, the literature supports the importance of strength training in enhancing performance and preventing injuries in basketball players. Strength training seems to be very important for inducing basketball performance. It not only builds muscle but also improves basketball skill level. The results show us that a lot of the research has been done on these two training methods separately, and these results imply that more research needs to be done on combining the two methods in order to impact basketball.

88609 | *Action Research on Integrating "Design Thinking: Empathy Experience" into Human Development Courses to Enhance Students' Empathy*  
An-Hui Chuang, National Taipei University of Technology; Jen-Teh Junior College of Medicine, Nursing and Management, Taiwan

Human Development courses primarily explore the developmental stages of the human lifespan from a developmental psychology perspective. However, due to the decrease in birth rates and changes in family structures, students in a Junior College often lack real-life experiences with newborns and infants, let alone understanding the physical, psychological, cognitive, and role transitions during the middle and old age stages. Caring is the essence of nursing and a core component of nursing education, where empathy is a crucial concept. For nursing personnel facing complex and diverse clinical situations, the appropriate use of empathy aids in the establishment of nurse-patient relationships and enhances the quality of nursing care. Nursing students who cannot empathize with the transitions or needs at various life stages may struggle to care deeply, empathize, and perceive the situations of patients in the workplace. This study aims to explore the impact of "Empathy Experience and Design" integrated into the Human Development course on students' empathy, to understand whether it enables students to observe and comprehend the physiological development, behavioral characteristics, cognitive and psychosocial development, and common issues of these developmental stages, and to apply their learning experiences in clinical care. Using action research methodology, the study targets sophomore nursing students at a Junior College in central Taiwan, collecting data through student reflection reports, focus group interviews, and empathy scale assessments. Qualitative data and quantitative data were analyzed to assess the impact of "Empathy Experience and Design" on students' empathy.

88281 | *The Application of Mind Mapping in a Production-Oriented Approach to Intermediate Integrated Chinese Courses*  
Zijuan Xie, Yanshan University, China

The Belt and Road Initiative has significantly boosted the demand for international Chinese language teachers, marking a "golden opportunity" for Chinese language education worldwide (Sun, 2021). Currently, there is widespread enthusiasm for learning Chinese, with over 50 million learners across 100 countries and more than 2,500 universities offering Chinese language courses globally. In 2015, Wen and colleagues developed the Production-Oriented Approach (POA) to address the "learning-using gap" in China's foreign language education. This approach consists of three key stages: "Motivation-Enablement-Assessment." Specifically, the Enablement stage bridges the gap between Motivation and Assessment as it provides targeted expansion exercises, such as mind mapping, to satisfy students' "hunger" for knowledge from the Motivation stage while laying a solid foundation for the Assessment stage. Using the POA, this paper explores the application of mind-mapping techniques as the Enablement stage among 20 college students in two intermediate Chinese comprehensive courses at a U.S. institution. Through a two-semester, two-round action research study, this paper explores methods to address common issues in the intermediate Chinese instruction, where both teachers and learners emphasize understanding vocabulary and language points while overlooking the main content, inherent structure, and expression of the text. By utilizing mind maps, this study aims to guide learners in grasping the overall content of the text, enhancing their awareness of text structure and paragraph-level expression, and providing empirical evidence to improve the efficiency and quality of Chinese language teaching.

87361 | *On the Hidden Relation Between Critical Thinking and Empathy*  
Raz Shepeizer, Kaye Academic College of Education, Israel

In the literature on critical thinking education the concept of empathy barely appears. Even when researchers do mention the term empathy, its meaning and its relation to critical thinking either remain vague or are discussed mostly from a cognitive perspective, with hardly any consideration of empathy's emotional aspect. This lack of scholarly engagement consequently influences both the way teachers understand critical thinking and the way they educate for it. My aim in this lecture is therefore to delve more deeply into the nature of the relationship between empathy and critical thinking in order to extend our understanding of this relationship and, in this way, to improve our education of critical thinking. I argue that this relationship is much more complex than has hitherto been understood. More specifically, I claim that optimal critical thinking, in effect, requires emotional empathy. Based on this conclusion, and from a praxis perspective, in the final part of the lecture I offer a number of teaching techniques and strategies that can help to improve education for critical thinking. I then offer a number of further theoretical and research questions concerning the nature of the interconnection between empathy and critical thinking.

# ACE2024 Pre-Recorded Virtual Presentations

88029 | *The Relationship of Reflective Learning to Students' Academic Performance in Filipino*

Joel Durban, Central Philippine University, Philippines

Merle Junsay, Central Philippine University, Philippines

Maria Alina Pescadera, Central Philippine University, Philippines

This quasi-experimental study investigated the relationship of reflective learning and students' academic performance in teaching a Filipino course at a private university in Central Philippines. It utilized two intact sections of third-year college students taking a Filipino subject during the First Semester of AY 2023-2024. The instruments used were a 45-item multiple choice and a 10-point essay test duly validated and reliability tested before the implementation of the study. The data were analyzed using descriptive and inferential statistics at a .05 level of significance. Findings revealed that the academic performance of students in the Filipino course who were exposed to the reflective learning method had a higher academic performance than those who were exposed to the lecture-discussion method. Moreover, the study also found that the reflective learning method has a high potential to improve the quality of instruction in the Filipino course through students' improved academic performance.

## Notes

[illegible]



# Reviewers

IAFOR depends on the assistance of a large number of international academics and practitioners who contribute in a variety of ways to our shared mission of promoting international exchange, facilitating intercultural awareness, encouraging interdisciplinary discussion, and generating and sharing new knowledge. Our academic events would not be what they are without a commitment to ensuring that international norms of peer review are observed for our presentation abstracts. With thousands of abstracts submitted each year for presentation at our conferences, IAFOR relies on academics around the world to ensure a fair and timely peer review process in keeping with established international norms of double-blind peer review.

We are grateful for the time, effort, and expertise donated by all our contributors.

# ACE2024 Review Committee

Dr Rose Amnah Abd Rauf, University of Malaya, Malaysia  
Dr Doaa Abdul Kalik, Al-Mustansiriya University, Iraq  
Dr Laila Mohsin Adeel, University of Management & Technology, Lahore, Pakistan  
Dr Joan Alejo, St. Agnes Academy, Inc., Philippines  
Dr Raniya Alsehibany, Riyadh College of Technology for Girls, Saudi Arabia  
Dr Jonathan Barcelo, Saint Louis University, Philippines  
Dr Ronald Catapang, National University (NU-Lipa), Philippines  
Dr Shravasti Chakravarty, XLRI Delhi-NCR, India  
Dr Sin Yu Cherry Chan, City University of Hong Kong, Hong Kong  
Professor Chingya Chiu, Chang Jung Christian University, Taiwan  
Dr Trinette Colina, University of the East Manila, Philippines  
Professor Dary Dacanay, St. Patrick School, Philippines  
Dr Ian Davison, Rabdan Academy, United Arab Emirates  
Dr Bankole Faloye, Bamidele Olumilua University of Education, Science and Technology, Ikere Ekiti, Nigeria  
Dr Jane Fenequito, Urdaneta City University, Philippines  
Dr Nuramah Hajikaleng, Narathiwat Technical College, Princess of Naradhiwas University, Thailand  
Dr Cheng Hsu, Jiangsu Normal University, China  
Dr Alexander Ibni, Zamboanga Peninsula Polytechnic State University, Philippines  
Dr Junaidi Junaidi, Universitas Muhammadiyah Palopo, Indonesia  
Dr Sahrnizam Kasah, Maktab Duli Pengiran Muda Al-Muhtadee Billah, Brunei  
Dr Allya Koesoema, Institut Teknologi Bandung, Indonesia  
Dr Lisa Lam, Hong Kong Baptist University, Hong Kong  
Dr Chooi Yeng Lee, Monash University, Malaysia  
Dr Lewis Teo Piau Liew, Politeknik Kuching Sarawak, Malaysia  
Dr Imelda Macaraig, St. Mary's College Inc., Philippines  
Dr Sonal Mobar Roy, National Institute of Rural Development and Panchayati Raj, India  
Dr Hidayah Mohd Fadzil, Universiti Malaya, Malaysia  
Dr Joseph Moraca, Eulogio "Amang" Rodriguez Institute of Science and Technology, Philippines  
Dr Non Naprathansuk, Maejo University, Thailand  
Dr Venus Parmisana, Mindanao State University-Iligan Institute of Technology (MSU-IIT), Philippines  
Dr Elymar Pascual, Department of Education, Philippines  
Dr Myra Patambang, De La Salle Medical and Health Sciences Institute, Philippines  
Dr Jirutthitikan Pimvichai, Mahidol University, Thailand  
Dr Nitta Roonkaseam, Phranakhon Rajabhat University, Thailand  
Dr Nor Fadzleen Binti Sa Don, English Language Teaching Centre, Ministry of Education Malaysia, Malaysia  
Dr Nilda San Miguel, Department of Education, Lumban District, Laguna, Philippines  
Dr Jay Mark Santos, La Consolacion University Philippines, Philippines  
Dr Mark Rey Santos, La Consolacion University Philippines, Philippines  
Dr Diana Po Lan Sham, Hong Kong Chinese Institute of Engineers, Hong Kong  
Dr Fathi Shamma, The Arab Academic College for Education Israel Haifa, Israel  
Dr Pua Shiau Chen, New Era University College, Malaysia  
Dr Kenneth Tan, Octave Institute, Singapore  
Professor Bengü Türkoğlu, Necmettin Erbakan University, Turkey  
Dr Mercedes Valadez, California State University, Sacramento, United States  
Dr Chandra Mohan Vasudeva Panicker, Lincoln University College, Malaysia  
Dr Tina Wong, Hong Kong Polytechnic University, Hong Kong  
Dr Dennis Lee Jarvis Ybañez, University of the Philippines Open University, Philippines  
Dr Yvonne, Chin Chen Yong, Ministry of Education, Brunei Darussalam, Brunei  
Dr Adam Zulawnik, University of Melbourne, Australia

# ACE2024 Senior Reviewers

Dr Rainilyn Duque, Bulacan State University, Philippines  
Dr Yathana Pakawattanakoson, King Mongkut's University of Technology Thonburi, Thailand  
Dr Mercedes Valadez, California State University, Sacramento, United States  
Dr Lemar Ablasa, Benguet State University - Buguias Campus, Philippines  
Dr Tiamyod Pasawano, Rajamangala University of Technology Thanyaburi, Thailand  
Dr Parama Kwangmuang, Khon Kaen University, Thailand  
Professor Izhar Oplatka, Tel Aviv University, Israel  
Dr Jayden Ang, Nanyang Polytechnic, Singapore  
Dr Elaine Correa, California State University, Bakersfield, United States  
Professor Begonia Crespo, University of A Coruña, Spain  
Dr Crisanto Daing, Our Lady of Fatima University, Philippines  
Dr Bilal Khalaf, University of Anbar, Iraq  
Dr Zuraini Mat Issa, Universiti Teknologi MARA, Malaysia  
Dr Sherry Ann Medrano-bacolod, Polytechnic University of the Philippines, Philippines  
Dr Alexis Michael Oledan, Mindanao State University - Iligan Institute of Technology, Philippines  
Dr Patsawut Sukserm, Chulalongkorn University, Thailand  
Dr Parvinder Singh Amar Singh, SEAMEO RECSAM, Malaysia  
Dr Gianne Rensen Antonio, Patronage of Mary Development School, Philippines  
Dr Alina Chirciu, Sultan Qaboos University, Oman  
Dr Desiree Daniega, Far Eastern University – Dr. Nicanor Reyes Medical Foundation, Philippines  
Dr Jovelyn Delosa, Northern Bukidnon State College, Philippines  
Dr Andrea Dodo-balu, Curtin University, Australia  
Professor Hui Meng Er, IMU University, Malaysia  
Dr Jennifer Fabula, De La Salle-College of Saint Benilde, Philippines  
Dr Maria Pilar Garcia-de-la-torre, University of A Coruña, Spain  
Dr Xiaopeng Gong, Western Oregon University, United States  
Dr Nor Zatul-iffa Ismail, Universiti Malaya, Malaysia  
Dr Tomayess Issa, Curtin University, Australia  
Dr Suwisa Jarutkamolpong, Nakhon Phanom University, Thailand  
Dr Kati Keski-mäenpää, Jyväskylä University, Finland  
Dr Derrick Lee, Republic Polytechnic, Singapore  
Dr Ivan Low, National University of Singapore, Singapore  
Dr Parinya Meesuk, Rajamangala University of Technology Thanyaburi, Thailand  
Dr Eliana Naser, University of Glasgow, Singapore  
Dr Rachel Takriti, United Arab Emirates University, United Arab Emirates  
Dr Ling Yann Wong, Universiti Putra Malaysia, Malaysia  
Dr Huiyuan Ye, Shanghai Jian Qiao University, China  
Dr Yvonne, Chin Chen Yong, Ministry of Education, Brunei Darussalam, Brunei  
Dr Annisaa Basar, University of Malaya, Malaysia  
Dr Hery Budiawan, Universitas Negeri Jakarta, Indonesia  
Professor Shiu-wan Hung, National Central University, Taiwan  
Dr Lisel Murdock-perriera, Sonoma State University, United States  
Dr Christopher Sasot, Polytechnic University of the Philippines, Philippines  
Dr Stephanie Hollings Nasr, Arizona State University, United States  
Dr June Gwee, Civil Service College, Singapore  
Dr Zanariah Ahmad, Universiti Tun Hussein Onn Malaysia, Malaysia  
Professor Dawn Zinga, Brock University, Canada  
Dr Khairunnisa Kamarulzaman, Sultan Idris Education University, Malaysia  
Dr Chongo Rosemary Musonda Mwila, UNICAF University, Zambia  
Dr Jovar Pantao, Mindanao State University-General Santos, Philippines  
Dr Kim Yong Lim, National University of Singapore, Singapore  
Dr Kenneth Pael, Siquijor State College, Philippines  
Professor Hamaed Almutairi, Qassim University, Saudi Arabia  
Professor Yuchia Chiu, Shu-Te University, Taiwan



# ACE2024 Senior Reviewers (cont.)

Dr C K Peter Chuah, Singapore University of Social Sciences, Singapore  
Dr Joel Durban, Central Philippine University, Philippines  
Dr Suchapa Netpradit, King Mongkut's University of Technology Thonburi, Thailand  
Dr Susan Vicente Villarente, University of Southeastern Philippines, Philippines  
Dr Badriya Alsadrani, United Arab Emirates University, United Arab Emirates  
Professor Hsiao-yun Chang, Chang Gung University of Science and Technology, Taiwan  
Dr Raunaq Chawla, O.P Jindal Global University, India  
Dr Terrence Chong, University of New South Wales, Australia  
Dr Yuk Ting Hester Chow, The Hong Kong Polytechnic University, Hong Kong  
Dr Violeta Collado, Don Mariano Marcos Memorial State University - North La Union Campus, Philippines  
Dr Shu-shing Lee, National Institute of Education, Nanyang Technological University, Singapore  
Professor Khashane Stephen Malatji, University of South Africa, South Africa  
Dr Neesa Ameera Mohamed Salim, Universiti Teknologi MARA, Malaysia  
Dr Jergen Romulo, Canitoan National High School, Philippines  
Dr Sakinah Salleh, Faculty of Human Science, Sultan Idris Education University, Malaysia  
Professor Mamiko Takeuchi, Aichi Gakuin University, Japan  
Dr Cecilia Teng, National University of Singapore, Singapore  
Dr Askat Tleuov, KIMEP University, Kazakhstan  
Professor Henry Tsang, Athabasca University, Canada



# ACE2024 Reviewers

Dr Jose Abat, Polytechnic University of the Philippines, Philippines  
Dr Luan Au, University of Medicine and Pharmacy at Ho Chi Minh City (UMP), Vietnam  
Dr Manilyn Cacanindin, Don Mariano Marcos Memorial State University, Philippines  
Dr Misbah Malik, University of the Punjab, Pakistan  
Professor Keith Miller, University of Missouri-St. Louis, United States  
Dr Yvonne Ualesi, Auckland University of Technology, New Zealand  
Dr Eric A. Ambele, Mahasarakham University, Thailand  
Dr Ali Akbar Ghasemi, University of Farhangian, Iran  
Dr Michelle Hsien, Australian Council for Educational Research, Australia  
Dr Guotsai Hung, National Taichung University of Science and Technology, Taiwan  
Dr Phuc Le, RMIT Vietnam University, Vietnam  
Dr Mzamani Aaron Mabasa, University of South Africa, South Africa  
Dr Samra Maqbool, Zhejiang Normal University, China  
Dr Cashandra Mara, University of Johannesburg, South Africa  
Dr Takashi Sano, Chukyo University, Japan  
Professor Pei-shan Tsai, National Taipei University of Technology, Taiwan  
Professor Lucie Zundans-fraser, Charles Sturt University, Australia  
Dr Lateef Adegboyega, University of Ilorin, Nigeria  
Dr Camey L. Andersen, Brigham Young University, United States  
Dr Nazmun Nessa Bakth, Shahjalal University of Science and Technology, Sylhet, Bangladesh  
Dr Luke Butcher, Curtin University, Australia  
Dr Nguyen Cao Thi Tai, Can Tho University of Medicine and Pharmacy, Vietnam  
Dr Ted Chang, National Academy for Educational Research, Taiwan  
Dr Chen-an Chang, National Chengchi University, Taiwan  
Dr Pakpoom Chansri, King Mongkut's University of Technology Thonburi, Thailand  
Dr Ying-chih Chen, Arizona State University, United States  
Dr Chin-hui Chen, National Pingtung University of Science and Technology, Taiwan  
Dr Xuanyu Chen, Beijing Normal University, China  
Dr Patricia Chew, Singapore University of Social Sciences, Singapore  
Dr Tendai Chikweche, Western Sydney University, Australia  
Dr Shiao-wei Chu, National Pingtung University, Taiwan  
Dr Khandaker Dahirul Islam, University of Science and Technology Chittagong, Bangladesh  
Dr Maria Salud Delos Santos, Cebu Technological University, Philippines  
Dr Michelle Eades-baird, Empire State University, United States  
Dr Melanie Florentino, FEATI University, Philippines  
Professor Siw Fosstenløkken, Oslo Metropolitan University, Norway  
Dr Dianne Gloria, Bulacan State University, Philippines  
Dr Anele Gobodwana, University of South Africa, South Africa  
Professor Stuart Hargreaves, The Chinese University of Hong Kong, Hong Kong  
Dr Tomoya Hashimoto, Osaka Metropolitan University, Japan  
Dr Simon Hayhoe, University of Exeter, United Kingdom  
Dr Bei Hong, Singapore Management University, Singapore  
Dr Tazeen Husain, University of Karachi, Pakistan  
Dr Toru Iiyoshi, Kyoto University, Japan  
Dr Assel Imasheva, Astana IT University, Kazakhstan  
Professor Ali Sabri Ipek, University of Recep Tayyip Erdogan, Turkey  
Professor Benedicte Irgens, University of Bergen, Norway  
Dr Mercedita Japay, Philippine Women's College of Davao, Philippines  
Dr Anna Joan Casademont, TÉLUQ University, Canada  
Dr Michael Johnson, Hamamatsu University School of Medicine, Japan  
Professor Raushan Jumaniyazova, Kurmangazy Kazakh National Conservatory, Kazakhstan  
Dr Harumi Kashiwagi, Kobe University, Japan  
Dr Yoshimi Kozai, Ritsumeikan University, Japan  
Dr Tan Ming Kuang, Universitas Kristen Maranatha, Indonesia

# ACE2024 Reviewers (cont.)

Dr Stephen Kyakulumbye, Uganda Management Institute, Uganda  
Professor Kuo-wei Lee, National Taichung University of Science and Technology, Taiwan  
Dr Wing Sze Leung, National University of Singapore, Singapore  
Professor Tzung-jin Lin, National Taiwan Normal University, Taiwan  
Professor Tzu-chiang Lin, National Kaohsiung University of Science and Technology, Taiwan  
Dr Ting-Ying Lo, Tzu Chi University, Taiwan  
Dr Maria Loreen Lofranco, University of St. La Salle, Philippines  
Dr Po Ching Lu, National Taipei University of Technology, Taiwan  
Dr Neal Luo, Emporia State University, United States  
Dr Nang Ma, Singapore University of Social Sciences, Singapore  
Professor Yasser Mansour, Prince Sultan University, Saudi Arabia  
Dr Dennis Mccornac, Georgetown University Qatar, Qatar  
Dr Nor Farizal Mohammed, Universiti Teknologi MARA, Malaysia  
Dr Nino Naldoza, Philippine Normal University, Philippines  
Dr Pathitta Nirunpornputta, Bangkok University, Thailand  
Dr Ryo Okada, Kagawa University, Japan  
Dr Hesborn Ondiba, Tokyo University of Science, Japan  
Dr Dee Jean Ong, HELP University, Malaysia  
Dr María Orcasitas-vicandi, University of the Basque Country, Spain  
Dr Jin-hee Park, Ajou University, South Korea  
Dr Elmira Thrina Pelayo, Bulacan State University, Philippines  
Dr Andrea Perales Fernandez De Gamboa, University of the Basque Country (UPV/EHU), Spain  
Dr Yada Pinatha, Suranaree University of Technology, Thailand  
Dr Linda Primana, Universitas Indonesia, Indonesia  
Dr Charmine Sheena Saflor, De La Salle University, Philippines  
Dr Diana Saiki, Ball State University, United States  
Dr Ravipan Saleepon, Srinakharinwirot University, Thailand  
Dr David Michael San Juan, De La Salle University & National Research Council of the Philippines, Philippines  
Dr Eva Septiana, University of Indonesia, Indonesia  
Dr Mohamed Shahat, Sultan Qaboos University, Oman  
Dr Wei Shi, SUNY Farmingdale, United States  
Professor Tatag Yuli Eko Siswono, Universitas Negeri Surabaya, Indonesia  
Professor Jonathan Smith, Université de Sherbrooke, Canada  
Dr Chutiwat Suwatthipong, Sukhothai Thammathirat Open University, Thailand  
Dr Martin Sviatko, CamEd Business School, Cambodia  
Dr Wee Chun Tan, Universiti Putra Malaysia, Malaysia  
Dr Jully Tan, Monash University Malaysia, Malaysia  
Dr Hei-hang Hayes Tang, The Education University of Hong Kong, Hong Kong  
Dr Naomi Tsunematsu, Hiroshima University, Japan  
Professor Anisa Vahed, Xi'an Jiaotong-Liverpool University, China  
Dr Ethan Wong, Nanyang Technological University, Singapore  
Dr Yvonne Wong, Hong Kong Baptist University, Hong Kong  
Dr Wai-yan Wong, Universiti Kebangsaan Malaysia, Malaysia  
Dr Jen-yin Yeh, National Pingtung University, Taiwan  
Dr Hajar Al Sultan, King Faisal University, Saudi Arabia  
Dr Amitabha Basu, St. Matthews University School of Medicine, Cayman Islands  
Dr Remelyn Cheng, Mapúa Malayan Colleges Mindanao, Philippines  
Professor Hsiu-chu Hsu, National Dong Hwa University, Taiwan  
Dr Shirley Huang, University of New South Wales, Australia  
Professor Joon K. Kim, Seoul National University, South Korea  
Dr Akanksha Mishra, Amity University Uttar Pradesh, India  
Dr Loren Naffziger, Grand Canyon University, United States  
Professor Julie Poissant, Université du Québec à Montréal, Canada  
Dr Sirimonpak Suwannakhun, King Mongkut's University of Technology Thonburi, Thailand  
Dr Nga Yui Tong, Hong Kong Metropolitan University, Hong Kong  
Dr Xixi Zhang, Osaka University, Japan

## Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

## Notes

[illegible]



# IAFOR Upcoming Events 2024-2025

international  
intercultural  
interdisciplinary

iafor

## Honolulu

January 03-07, 2025

The 10th IAFOR International Conference on Education in Hawaii (IICE2025)  
The 5th IAFOR International Conference on Arts & Humanities in Hawaii (IICAH2025)  
The IAFOR Undergraduate Research Symposium in Hawaii (IURS)

## Kuala Lumpur

February 21-25, 2025

The 5th Southeast Asian Conference on Education (SEACE2025)

## Tokyo

March 24-29, 2025

The 11th Asian Conference on Education & International Development (ACEID2025)  
The 15th Asian Conference on Psychology & the Behavioral Sciences (ACP2025)  
The 11th Asian Conference on Aging & Gerontology (AGen2025)

## Tokyo

May 11-16, 2025

The 16th Asian Conference on Arts & Humanities (ACAH2025)  
The 15th Asian Conference on Cultural Studies (ACCS2025)  
The 16th Asian Conference on the Social Sciences (ACSS2025)

## Paris

June 10-14, 2025

The 4th Paris Conference on Education (PCE2025)  
The 4th Paris Conference on Arts & Humanities (PCAH2025)

## London

July 10-14, 2025

The 13th European Conference on Education (ECE2025)  
The 13th European Conference on Arts & Humanities (ECAH2025)  
The 5th European Conference on Aging & Gerontology (EGen2025)

## Barcelona

September 30-October 4, 2025

The 6th Barcelona Conference on Education (BCE2025)  
The 6th Barcelona Conference on Arts, Media & Culture (BAMC2025)

## Kyoto

November 4-7, 2025

The 6th Kyoto Conference on Arts, Media & Culture (KAMC2025)  
The 16th Asian Conference on Media, Communication & Film (MediAsia2025)

## Tokyo

November 23-28, 2025

The 17th Asian Conference on Education (ACE2025)

## Subscribe and Stay Informed

To receive email updates about IAFOR's conferences, publications and other activities, please **scan this QR code** and complete the online form.

[iafor.org/subscribe](https://iafor.org/subscribe)



# iafor

## RESEARCH ARCHIVE

# [www.papers.iafor.org](http://www.papers.iafor.org)



Visit the IAFOR Research Archive, where you can search and access the repository of research generated by IAFOR.

You can search by keyword(s), subject area(s), or specific conference proceeding(s) to access abstracts and full papers from past IAFOR conference proceedings, browse and read them online, or download them to your device.