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HAWAII

January 06–09, 2021 | Held online from Hawaii, USA

The 6th IAFOR International Conference on Education – Hawaii

The 5th IAFOR International Conference on Sustainability, Energy & the Environment

PROGRAMME & ABSTRACT BOOK

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Future Talent Council

URBAN INCD INCERC

IAFOR has entered into a number of strategic partnerships with universities across the world to form the IAFOR Global Partnership Programme. These academic partnerships support and nurture IAFOR's goals of educational cooperation without borders, connecting the organisation with institutions that have an international and internationalising profile, and a commitment to interdisciplinary research. The IAFOR Global Partnership Programme provides mutual recognition and scope for Global Partner institutions and organisations to showcase their research strengths, as well as engage in the development of projects and programmes with IAFOR.

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University of Hawai'i at Manoa, United States

Sela V. Panapasa
University of Hawai'i at Manoa, United States

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Letter of Welcome

Aloha!

From wherever you are joining us in the world, I wish you a very warm welcome to the first IAFOR conference of 2021, held in collaboration with the College of Education at the University of Hawai'i Manoa. Although we are sad not to be able to meet physically this year due to the coronavirus, Oahu, which translates as "the gathering place", must take its form online due to the global pandemic.

2020 proved to be an immensely difficult year for people around the world, and we kick off 2021 in the hope and expectation of better things to come. As we speak, programmes of mass vaccinations against the coronavirus are beginning around the world. The various vaccines have been developed at great speed and are a testament to the collaboration of many different scientists and policy makers across the world. Human ingenuity combined with science and learning has proven it can address the most daunting of challenges. However, as educators, we must make sure that we learn the many lessons that this year will have taught us, chiefly that it is we humans who got ourselves into this trouble in the first place.

While we are right to live in hope and with the possibilities of technology, many of the things that we have come to take for granted over the past decades, such as cheap, easy and reliable travel between countries, has become questioned as different nations have responded to the global health crisis in different ways, each impacting local societies, economies, communities, and many individual lives. The pandemic also starkly frames global inequalities.

For the academic community, perhaps the most important thing that this crisis will have taught us is that the freedoms that we hold so close, such as those of expression and movement in a globalised world, bring to the fore questions of transparency and governance on an international level. This serves to remind us that questions of human security and public policy, as they relate to such issues as health, climate change, pollution, and individual rights and responsibilities, do not happen in sovereign vacuums, but instead impact other nation-states. If one country is not as transparent as it otherwise might be, then the repercussions are not only domestic, but frequently felt across borders. In a globalised world, it follows that our problems are increasingly global, entangled, and enmeshed.

For those who would argue that this crisis provides evidence that authoritarian regimes are better placed to deal with crises of this magnitude, it must be underlined that they are certainly better at creating such crises. The global curtailment of freedoms and effective mass incarcerations, including the marginalising of dissenting voices in the name of social cohesion, has been a worrying part of the "new normal". As a planet, we are now collectively writing the new normal. Let that writing be free and true, open, and honest.

Never has it been more important to encourage concerted cooperation at all levels between countries in order to seek solutions to the world's most pressing issues. As one such platform, and as we begin to regroup and realign, the coronavirus will likely continue to influence our personal and professional lives. As a recognition of this, IAFOR has decided to adopt "Resilience" as its overarching global theme to frame its research and events in 2021 and 2022.

The jointly held Hawaii conferences on Education and Sustainability, Energy and the Environment are the first to kick off with this theme of "Resilience" and our local partners at the University of Hawai i at Manoa's College of Education have been wonderfully supportive of the event in the ever changing circumstances of the ongoing global crisis. My thanks goes to the entire conference committee, and in particular to Professor Curtis Ho, Professor Xu Di, and most especially this year to Professor Michael Menchaca, whose oversight of the programming and dedication to the event has been fantastic.

I look forward to a great conference online, and I thank you in advance for your active participation.

Mahalo and Thank you!

Dr Joseph Haldane
Chairman & C.E.O, The International Academic Forum (IAFOR)

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RESEARCH ARCHIVE

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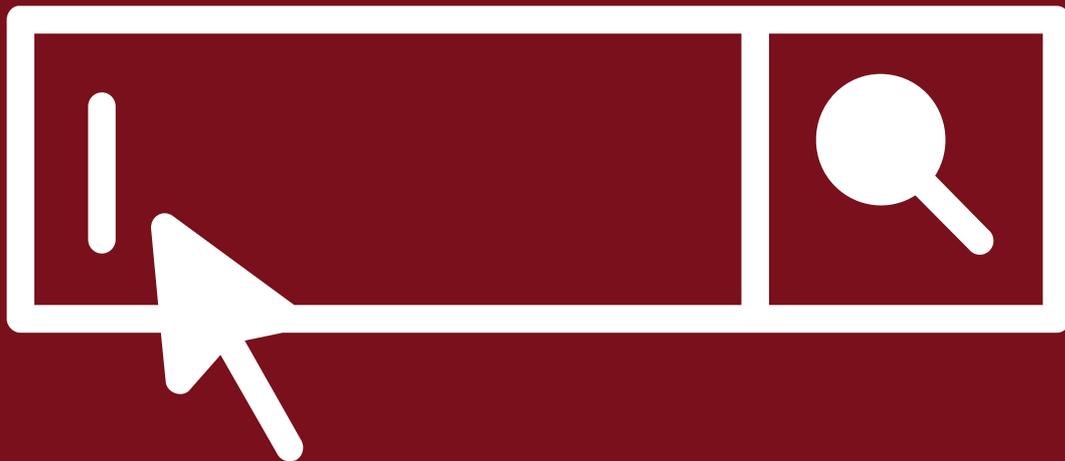
Visit the IAFOR Research Archive, where you can search and access the repository of research generated by IAFOR.

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.
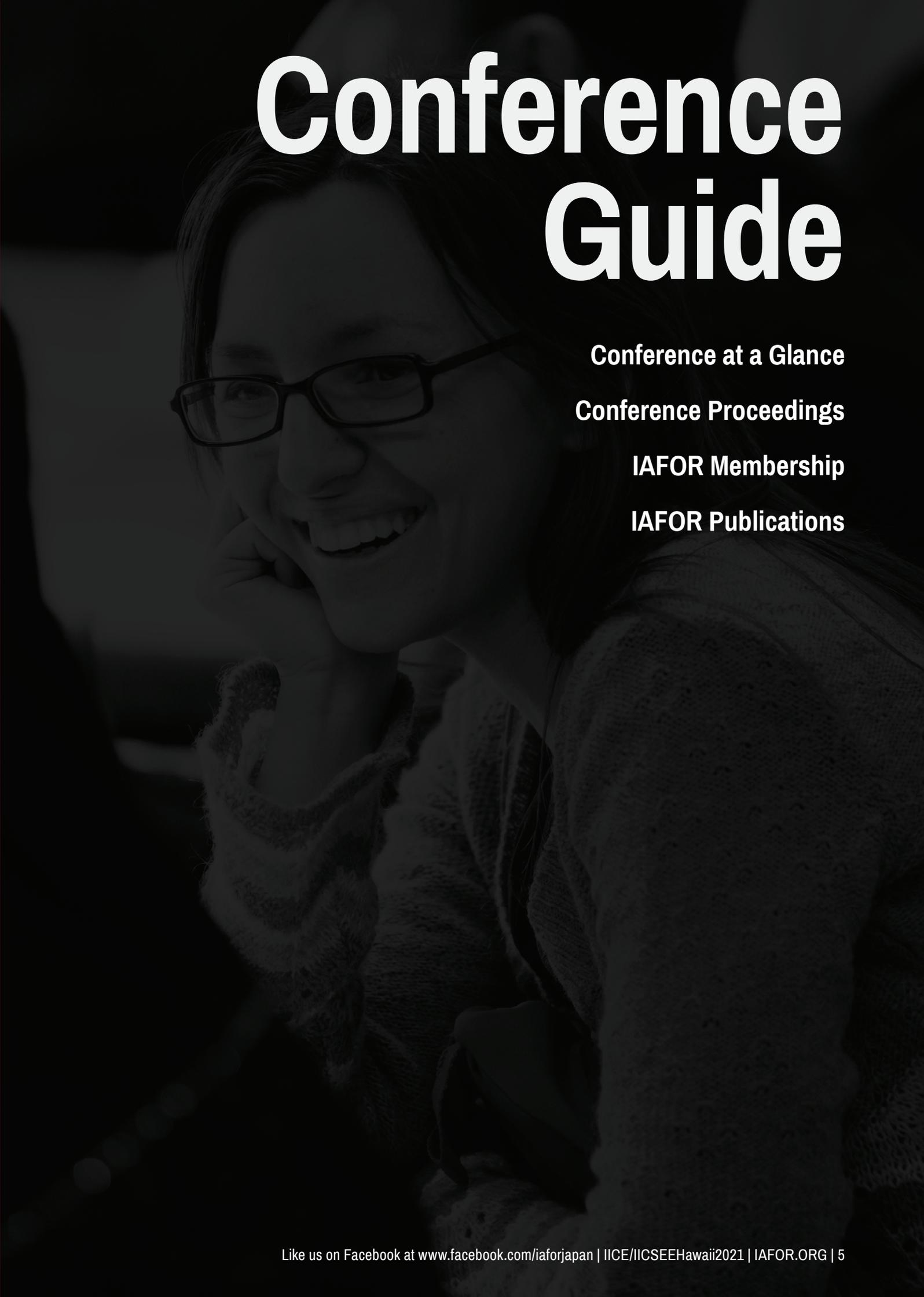
Conference Guide

Conference at a Glance

Conference Proceedings

IAFOR Membership

IAFOR Publications

January 06, 2021 | All times are Hawaii Standard Time (UTC-10)
Wednesday at a Glance

14:00-14:30 **Announcements, Recognition of IAFOR Scholarship Winners, & Welcome Address**
Joseph Haldane, IAFOR, Japan

14:30-15:15 **Keynote Presentation**
Recalibrating Educational and Institutional Choreographies to Lead Learning for Tomorrow
Som Naidu, University of the South Pacific, Fiji

15:15-16:00 **Keynote Presentation**
Critical Empathy: The Role of Education Amidst Xenophobic Pandemonium
Christine R. Yano, University of Hawai'i at Manoa, United States

16:00-16:15 Break

16:15-17:15 **Panel Presentation**
The Development, Use, and Exploration of Open Educational Resources in Higher Education
Beth Tillinghast, University of Hawai'i at Manoa, United States
Billy Meinke, University of Hawai'i at Manoa, United States
Veronica Howard, University of Alaska Anchorage, United States

17:15-18:15 Networking Coffee
This session is hosted by the conference organising committee to bring together participants who are interested in creating new ties with fellow educators & researchers.

January 07, 2021 | All times are Hawaii Standard Time (UTC-10)
Thursday at a Glance

14:00-14:15   **Welcome Address**
                    Joseph Haldane, IAFOR, Japan

14:15-15:15   **Panel Presentation**
                    Cultural Resilience in a Changing World
                    Amber Strong Makaiau, University of Hawai'i at Manoa, United States
                    Mary Therese Perez Hattori, East-West Center, United States
                    James W. McNally, University of Michigan, United States
                    Sela Panapasa, University of Michigan, United States

15:15-15:30   Break

15:30-16:30   **Panel Presentation**
                    Post-pandemic Online Education:
                    Moving from Crisis Intervention to Optimal Experience
                    Michael Menchaca, University of Hawai'i at Manoa, United States
                    Ariana Eichelberger, University of Hawai'i at Manoa, United States
                    Peter Leong, University of Hawai'i at Manoa, United States
                    Paul McKimmy, University of Hawai'i at Manoa, United States
            Moderator: Daniel Hoffman, University of Hawai'i at Manoa, United States

16:35-17:20   **Keynote Presentation**
                    Resilience: One Man's Journey Across the World
                    Lowell Sheppard, HOPE International Development Agency, Japan

17:20-18:20   Networking Coffee
                    Hosted by the conference organising committee. All are welcome.

January 08, 2021 | All times are Hawaii Standard Time (UTC-10)
Friday at a Glance

13:00-14:15	**Live-Stream Session 1** Room A: Climate Change Room B: Teaching Experiences, Pedagogy, Practice & Praxis
14:15-14:25	Break
14:25-15:15	**Live-Stream Session 2** Room A: Industry, Innovation & Infrastructure Room B: Education Policy, Leadership, Management & Administration
15:15-15:25	Break
15:25-16:40	**Live-Stream Session 3** Room A: Education in times of COVID-19 Room B: Education & Difference: Gifted Education, Special Education, Learning Difficulties & Disability
16:40-16:50	Break
16:50-18:05	**Live-Stream Session 4** Room A: Education, Sustainability & Society/Culture Movements Room B: Higher Education
18:05-18:15	Break
18:15-19:05	**Live-Stream Session 5** Room A: Interdisciplinary Topics on Green Issues

January 09, 2021 | All times are Hawaii Standard Time (UTC-10)
Saturday at a Glance

13:00-14:15   **Live-Stream Session 1**
Room A: Language Teaching

14:15-14:25   Break

14:25-15:15   **Live-Stream Session 2**
Room A: Foreign Languages Education & Applied Linguistics
Room B: Learning Experiences, Student Learning & Learner Diversity

15:15-15:25   Break

15:25-16:40   **Live-Stream Session 3**
Room A: Teaching Experiences, Pedagogy, Practice & Praxis
Room B: Interdisciplinary Topics on Education

16:40-16:50   Break

16:50-18:30   **Live-Stream Session 4**
Room A: Professional Training, Development & Concerns in Education
Room B: Design, Implementation & Assessment of Innovative
Technologies in Education

18:30-18:40   Break

18:40-19:30   **Live-Stream Session 5 (Workshops)**
Room A: The Poetry Box
Room B: Engaging Participates Online and In-Person

19:30-19:40   **Conference Closing Address**
Joseph Haldane, IAFOR, Japan

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). 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 February 12, 2021, through the online system. The proceedings will be published on March 12, 2021.

Conference Catch-up

All 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.

Pre-Recorded Virtual Presentations

A full list of pre-recorded virtual video 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.

Become an IAFOR Member

IAFOR provides an excellent personal and professional environment for academics and scholars of all ages and backgrounds to come together and exchange the latest ideas, and inform each other's perspectives through their own cultural and disciplinary background and experiences. We are able to do this thanks to the exceptional network of individuals and institutions around the world who support our work and help shape our exceptional events globally. We emphasise the nurturing and supporting of young academics from different backgrounds, providing mutual advice and guidance, and offer more senior academics the chance to forge working relationships outside of their traditional networks.

In a world where division and strife are underlined and played up 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. We believe that mature human interaction and academic and cultural exchange are essential to offering positive versions of the future, where cooperation happens with individuals and institutions who share a commitment to bridge divides, to being good global citizens, and to making the world a better place.

By becoming a member, you will become a stakeholder in the IAFOR mission of 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:

www.iafor.org/membership

IAFOR Publications

Introduction

IAFOR's publications provide a constructive environment for the facilitation of dialogue between academics at the intersections of nation, culture and discipline. Since 2009, when the organisation was established, over 20,000 academics have presented their research at IAFOR conferences – a wealth of ideas have been generated and partnerships formed. Our various publications, from Conference Proceedings, to peer-reviewed journals, to our online magazine, provide a permanent record of and a global online platform for this valuable research. All of our publications are Open Access, freely available online and free of publishing fees of any kind. By publishing work with IAFOR, authors enter into an exclusive License Agreement, where they have copyright, but license exclusive rights in their article to IAFOR as the publisher.

Conference Proceedings

As a presenter at an IAFOR conference you are encouraged to submit a final paper to our Conference Proceedings. These online publications are Open Access research repositories, which act as a permanent record of the research generated at IAFOR conferences. All of our Conference Proceedings are freely available to read online. Papers should be uploaded through the submission system before the Final Paper Submission Deadline, which is one month after the end of the conference. Please note that works published in the Conference Proceedings are not peer-reviewed and cannot be considered for publication in IAFOR journals.

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 the world over, largely with thanks 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.

Selected IAFOR Journals are available for purchase on Amazon. Search for The International Academic Forum (IAFOR).

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
IAFOR Journal of Education
IAFOR Journal of Literature & Librarianship
IAFOR Journal of Media, Communication & Film
IAFOR Journal of Psychology & the Behavioral Sciences

THINK

THINK, The Academic Platform, is IAFOR's online magazine, publishing the latest in interdisciplinary research and ideas from some of the world's foremost academics, many of whom have presented at IAFOR conferences. Content is varied in both subject and form, with everything from full research papers to shorter opinion pieces and interviews. *THINK* gives academics the opportunity to step outside of the traditional research publishing status quo – to get creative, explore different disciplines and to have their ideas heard, shared and discussed by a diverse, global audience.

For more information on *THINK* please visit www.think.iafor.org

If you would like more information about any of IAFOR's publications, please contact publications@iafor.org

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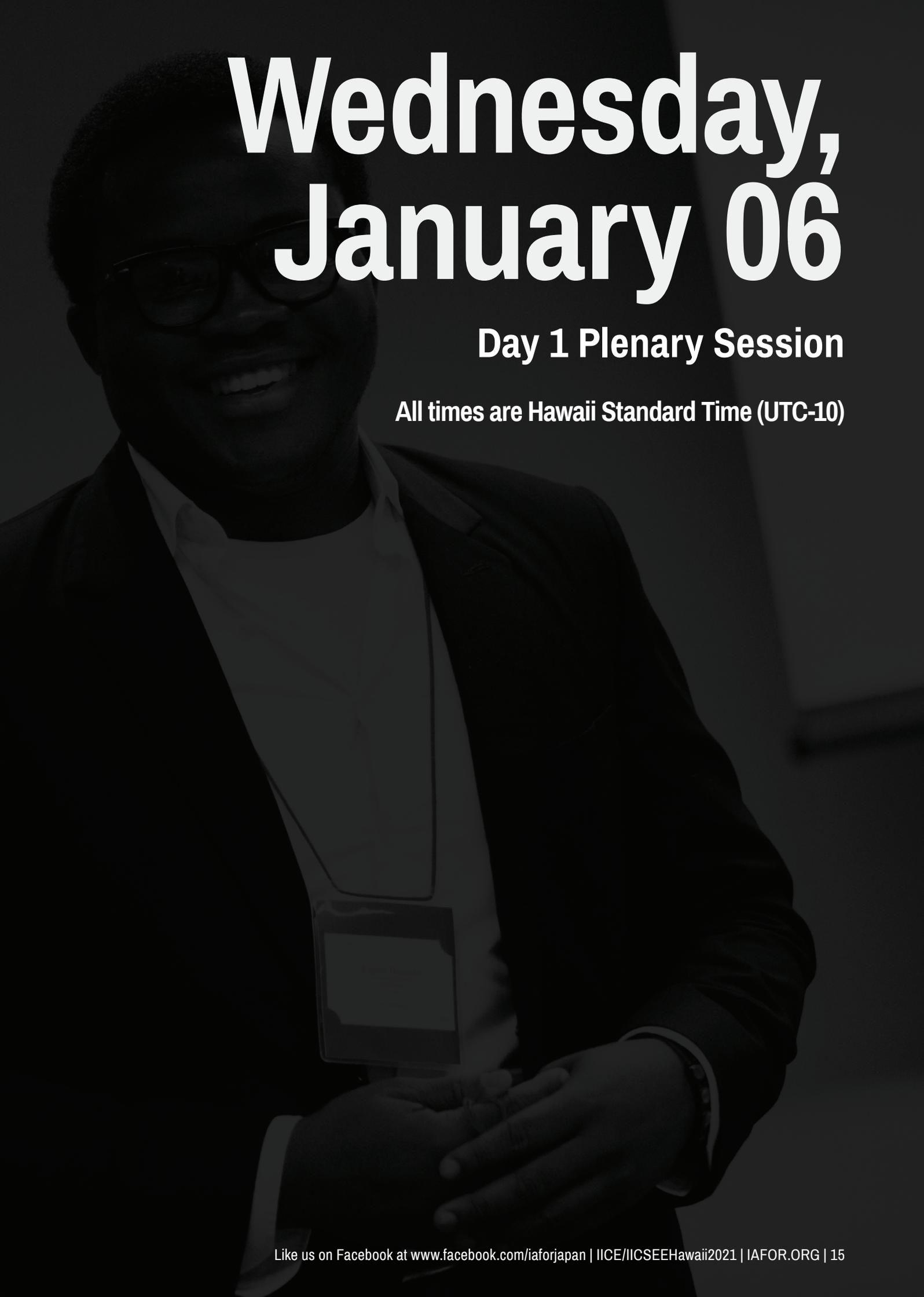
Wednesday, January 06

Day 1 Plenary Session

All times are Hawaii Standard Time (UTC-10)

Recalibrating Educational and Institutional Choreographies to Lead Learning for Tomorrow

Wednesday, January 06 | 14:30-15:15 | Hawaii Standard Time (UTC-10)

Contemporary educational institutions are experiencing disruptions to their modus operandi from a variety of sources—COVID-19 notwithstanding. A changing student demographic across the higher education sector, along with their changing educational needs is driving much of this disruption. Other drivers are the need for different kinds of skill sets required in the contemporary workplace, the need for alternative methods of credentialing and a demand for flexibility in the education space. How prepared are contemporary educational institutions for leading learning for the future? A recent Ernst Young report on the University of the Future in the Australian context suggests that, "Australia's universities are monolithic institutions that control all aspects of their teaching and research activities, anchored by physical spaces and time-bound schedule". This is a rather harsh indictment, but not an incorrect reflection of the contemporary higher education space broadly. While educational institutions are willing to experiment with new models and approaches on the peripheries of their core business, most are not bold enough to rethink and reconfigure their mainstream operations. It is rare to find enterprise-wide operations that are appropriately aligned to lead learning and teaching for tomorrow. Why is this so, and what can be done about a rethink and recalibration of how universities create, capture and offer value.

Som Naidu

Som Naidu is currently Pro-Vice Chancellor and Director, Center for Flexible Learning, at the University of the South Pacific. He has previously served in a variety of roles in the enhancement of learning and teaching at several Australian universities. Som Naidu possesses doctoral qualifications in Educational Technology from Concordia University in Montreal, Canada. A former president of the Open and Distance Learning Association of Australia, Som has served as executive editor of its journal Distance Education since 1997. In May 2014 the Open University of Sri Lanka awarded Som Naidu a D.Litt. (Honoris Causa), in recognition of his extensive contribution to the field of open, flexible, distance and e-learning both regionally and internationally. In addition, in July 2020, Advance Higher Education, UK, admitted Som Naidu as Principal Fellow of the Higher Education Academy for his commitment, contribution and strategic leadership in the scholarship of learning and teaching.

Critical Empathy: The Role of Education Amidst Xenophobic Pandemonium

Wednesday, January 6 | 15:15-16:00 | Hawaii Standard Time (UTC-10)

How does race shape some of the responses to the ongoing global pandemic? How does the pandemic shape the experience of race – in politics and in everyday lives? How might education play a role in strategizing answers to these fraught conditions? These questions structure my approach to discussing anti-Asian racism amid the pandemic with the goal of developing strategies of action for the targets of such racism, as well as for others for whom race-based violence is anathema. I argue that education must take responsibility for developing leadership based in critical empathy – that is, reaching out to others with both hearts and minds. In doing so, we teach not only tolerance and respect, but also actions of engagement. Through critical empathy we commit ourselves and future generations to embrace the full humanity of the community.

Christine R. Yano

Christine R. Yano, Professor of Anthropology at the University of Hawai'i, has conducted research on Japan and Japanese Americans with a focus on popular culture. Beginning in March 2020 she serves as the President of the Association for Asian Studies. Her publications include *Tears of Longing: Nostalgia and the Nation in Japanese Popular Song* (Harvard, 2002), *Crowning the Nice Girl; Gender, Ethnicity, and Culture in Hawaii's Cherry Blossom Festival* (Hawaii, 2006), *Airborne Dreams: "Nisei" Stewardesses and Pan American World Airways* (Duke, 2011), and *Pink Globalization: Hello Kitty and its Trek Across the Pacific* (Duke, 2013). She has also co-edited a number of volumes: *Modern Girls on the Go: Gender, Mobility, and Labor in Contemporary Japan* with Alisa Freedman and Laura Miller (Stanford, 2013), *Making Waves: Travelling Musics in Hawai'i, Asia, and the Pacific* with Fred Lau (Hawaii, 2018), and *Straight A's: Asian American College Students in Their Own Words* with Neal Akatsuka (Duke, 2018).

Panel Presentation: Beth Tillinghast, Billy Meinke & Veronica Howard

The Development, Use, and Exploration of Open Educational Resources in Higher Education

Wednesday, January 06 | 16:15-17:15 | Hawaii Standard Time (UTC-10)

This panel presentation will provide an overview of Open Educational Resources (OER), highlighting the publishing and collaboration efforts of the OER initiative at UH Manoa. It will also highlight the faculty experience of adopting, adapting, and involving students in the curation and development of new OER. Finally, it will provide an overview of research conducted on this topic, touching on local, national, and international research. Resources in support of further OER research will also be outlined.

Beth Tillinghast

Dr Beth H. Tillinghast has a PhD in Learning Design and Technology from the University of Hawai'i at Manoa. She also holds an MS in Library Science and an MA in Educational Technology. She has worked in education for over four decades, living and working in countries in Latin America, Southeast Asia, and the Middle East. She has recently retired from the University of Hawai'i at Manoa Library as a librarian working in the area of scholarly communication. Beth has been an Open Education Group Research Fellow, and her research interests include areas of open educational practices with a focus on Open Access and Open Educational Resources.

Billy Meinke

Billy Meinke-Lau is the Open Educational Resources (OER) Technologist for the University of Hawaii, supporting a system-wide effort to leverage OER for student success, equity, and cost reduction. Billy completed an MEd in educational technology from UH Manoa and worked for Creative Commons before taking his current leadership role with UH. He is also a doctoral student of Political Science, investigating the politics of collaborative scholarship in higher education. He lives in Honolulu with his family.

Veronica Howard

Dr Veronica Howard is an associate professor of Psychology, and co-coordinator of the Textbook Affordability Committee and Alaska Open Education Initiative at the University of Alaska Anchorage. Their research and service interests include open educational resources, evaluating pedagogical interventions, the intersection of technology and education, and organizational behavior management. As a first-generation college student, Veronica believes passionately that openly licensed and free-to-access course materials, combined with engaged teaching and mentorship, are critical for the success of historically underserved students in higher education. Veronica has been an OpenEd Group OER Research Fellow and has completed the Harvard CopyrightX program.

IAFOR Academic Grant & Scholarship Recipients

Our warmest congratulations go to Blessing Dwumah Manu and Christina Brown, who have been selected by the conference Organising Committee to receive grants and scholarships to present their research at the conference.

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. Awards are based on the appropriateness of the educational opportunity in relation to the applicant's field of study, financial need, and contributions to their community and to IAFOR's mission of interdisciplinarity. Scholarships are awarded based on availability of funds from IAFOR and vary with each conference.

Find out more about IAFOR grants and scholarships: **www.iafor.org/financial-support**

Blessing Dwumah Manu | IAFOR Scholarship Recipient

58060
School Management Functions and Students' Academic Performance Nexus: An Empirical Evidence From Public Senior High School in Ashanti Region of Ghana
Blessing Dwumah Manu, Jiangsu University, China

Mr Blessing Dwumah Manu is currently a postgraduate student at Jiangsu University, China. Originally from the Ashanti Region of Ghana, Blessing graduated with a Bachelor's degree in Education from the University for Development Studies in Ghana. After graduation, he spent two years as a researcher and teaching Assistant in the university before going to Jiangsu University, China for postgraduate studies. Mr. Blessing Dwumah Manu is also the secretary to the School of Management President and part of the invigilation team. He is also a member of the National Research Association for Education in China.

Christina Brown | IAFOR Scholarship Recipient

59043
Get Out of Your Comfort Zone: Externalization in Architecture to Increase Social and Environmental Connectivity
Christina Brown, Carnegie Mellon University, United States

Christina Brown is a Master of Science in Sustainable Design student at Carnegie Mellon University. Originally from Tianjin China, she lived in Bangalore India for two years before moving to Raleigh North Carolina. By living in so many vastly different locations all around the world, she has come to recognize and appreciate the role of nature on a person's well-being. This sparked her interests in sustainable architecture and ecological thinking, as she continued to pursue education in these areas throughout my undergraduate career. Crucial experiences such as working on a government-sponsored project for a 6 Ha Master Plan in Singapore during her study abroad and participating in the EcoDistrict Summit in Pittsburgh have led her to her current research in externalization of building programming, a paradigm shift in how we approach architectural design to design in social and environmental resiliency.

Thursday, January 07

Day 2 Plenary Session

All times are Hawaii Standard Time (UTC-10)

Cultural Resilience in a Changing World

Thursday, January 07 | 14:15-15:15 | Hawaii Standard Time (UTC-10)

This panel presentation will discuss Cultural Resilience.

A full abstract will be available on Janaury 4, 2021.

Amber Strong Makaiau

Dr Amber Strong Makaiau is a Specialist at the University of Hawai'i at Manoa (UHM) College of Education Institute for Teacher Education Secondary Program, the Director of the Hanahau'oli School Professional Development Center, and the Director of Curriculum and Research at the UHM Uehiro Academy for Philosophy and Ethics in Education. She has a BA in Psychology and Education from the University of California, Santa Cruz, a Masters in Education and Teaching from UHM, and a PhD in Curriculum and Instruction from UHM. She is a dedicated practitioner of philosophy for children of Hawai'i who achieved National Board Certification while teaching secondary social studies in the Hawaii State Department of Education for over ten years. She is also an award-winning educator who achieved the Hawaii International Education Week Honolulu Advertiser 2004 Outstanding Global Educator Award, the 2005 Oceanic Outstanding Educator Award, the 2011 Teaching Tolerance Award for Excellence in Culturally Responsive Teaching, the 2016 C3 Teachers Inquiry Design Model Challenge Award, and the 2017 National Council for the Social Studies College and University Faculty Assembly Kipchoge Neftali Kirkland Social Justice Paper Award. Her current projects apply progressive, multicultural, culturally responsive, social justice, and democratic approaches to education to the creation of a better future society. This includes a brand new Progressive Philosophy and Pedagogy MEd Interdisciplinary Education, Curriculum Studies Program at UHM.

Mary Therese Perez Hattori

Mary Therese Perez Hattori is Acting Director of the Pacific Islands Development Program, East-West Center. Prior to that, she served as a Scholarship Program Specialist with the East-West Center's Education Program, Director of the Center for Teaching and Learning at Chaminade University from 2017-2019 and was Outreach Director for the Center for Pacific Islands Studies at the University of Hawai'i at Manoa from 2015-2017 and from 2002-2015, was a faculty member at Kapi'olani Community College where as the Coordinator for the Center for Excellence in Learning, Teaching and Technology.

Dr Hattori holds a BEd. and Professional Diploma in Secondary Social Studies with a concentration in Pacific Islands History, an MEd in Educational Technology, and an EdD in Professional Educational Practice from the University of Hawai'i at Manoa.

A native Chamoru of Guåhan (Guam), she is a community organizer and advocate for Pacific islanders in Hawai'i, co-organizer of cultural events such as the Annual Cultural Animation Film Festival, the Annual Celebrate Micronesia Festival, Micronesian Women's Summit, and Oceania on the Reel, and teacher/mentor of students in Pacific Studies, Learning Design & Technology, and the UHM & San Francisco State University Educational Doctorate programs which are part of the Carnegie Project on the Educational Doctorate. Dr. Hattori is also an author, poet, public speaker, and philanthropist.

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 aging lifecourse. 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 aging lifecourse, health, retirement and international aspects of aging. He has spent much of his career addressing methodological issues with a specific focus on specialized 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 aging and changing perspectives on the role of family support in the later stages of the aging lifecourse.

Dr James W. McNally is a Vice-President of IAFOR. He is Chair of the Social Sciences & Sustainability division of the International Academic Advisory Board.

Sela Panapasa

Dr Sela V. Panapasa studies family support and intergenerational exchanges among aged Pacific Islanders living in the US and Pacific region. Her work examines changes in elderly living arrangements and headship status in response to demographic and socioeconomic change. Her interests include family demography, race and ethnicity, measuring health disparities and comparative studies.

Post-pandemic Online Education: Moving from Crisis Intervention to Optimal Experience

Thursday, January 07 | 15:30-16:30 | Hawaii Standard Time (UTC-10)

While the global pandemic has had a wide impact, education has been particularly affected. UNESCO estimated over 1.5 billion learners impacted worldwide by April 2021. As of December 2020, over 200 million students were still out of school. Even those that are back in school are still learning mostly via distance education. This crisis-based learning has had profound influence on teachers, students, parents, as well as administrators. Early research indicates a lack of appropriate access coupled with poorly implemented emergency instruction will have long lasting adverse effects on global learners. Key to combating this discouraging trend is to provide optimal online experiences such as retooling traditional orientation and graduation functions and providing overworked instructors with appropriate skills and training for distance settings. To begin to address such areas, the Department of Learning Design and Technology (LTEC) at the University of Hawai'i at Manoa engaged in innovative practices ranging from providing professional development training to redesigning non-classroom experiences for digital spaces. In this panel, LTEC faculty will briefly describe their specific projects and the outcomes. In addition, panel members will take questions and share their vision for optimal distance education in the future.

Michael Menchaca

Michael Menchaca is chair of the Department of Learning Design and Technology at the University of Hawai'i at Manoa. He specializes in distance education, and has designed, implemented, and coordinated online and hybrid programs for over 20 years. He serves as editor for the *IAFOR Journal of Education: Technologies and Education Special Edition*. He was an IT specialist for many years in the public and private sector. He teaches and conducts research in the areas of online learning, technology integration, and social justice with technology.

Ariana Eichelberger

Ariana Eichelberger is an Associate Specialist and Instructional Designer in the University of Hawai'i at Manoa's College of Education. Ari manages the Instructional Support Group of the College and coordinates the College's faculty professional development program. As a faculty member of the Department of Learning Design and Technology, Ari teaches graduate and undergraduate courses in instructional design and technology integration. She is also an instructional designer with the COE's Distance Course Design and Consulting group (DCDC).

Peter Leong

Dr Peter Leong is an Associate Professor with the Department of Learning Design & Technology, University of Hawai'i at Manoa. He has extensive experience in the development and delivery of online courses and distance education. Dr Leong currently serves on the Executive Board of the International Council of Educational Media and the Teaching, Colleges & Community (TCC) conference advisory panel. His research interests include student satisfaction with online learning, faculty support for technology integration, technologies for distance education and teaching and learning in virtual worlds.

Paul McKimmy

Paul McKimmy is Director of Technology and Distance Programs at the University of Hawai'i at Manoa College of Education and a faculty Specialist in Learning Design and Technology. Dr McKimmy oversees instructional and technical support teams, teaches graduate and undergraduate courses, works with faculty to develop online and hybrid programs and is responsible for supporting instructional technology within the College. Dr McKimmy received his bachelors in Business and Computer Science at Hope College and Doctorate in Educational Leadership from Western Michigan University.

Daniel Hoffman (Moderator)

Daniel L. Hoffman is an Assistant Professor of Learning Design and Technology at the University of Hawai'i at Manoa. Dan earned his doctorate in Instructional Technology and Media from Teachers College, Columbia University. His research focuses on the design of interactive experiences and their impact on learning and engagement. This interdisciplinary work is situated at the intersection of cognitive science, computer science, and learning science. He is a graduate of the New York City Teaching Fellows program and has designed and evaluated educational software for Intel and the Games for Learning Institute.

Keynote Presentation: Lowell Sheppard
Resilience: One Man's Journey Across the World
Thursday, January 07 | 16:30-17:15 | Hawaii Standard Time (UTC-10)

Lowell Sheppard will address us from his 40 foot Sailboat currently in Tokyo Bay. His talk will focus on what he is learning about the Great Pacific Garbage Patch and how he is involving students in the Pacific Solo expedition. During the last twelve months, he has successfully launched a YouTube Channel and drawn the interest of History Channel and other media outlets. His is a timely mission as we seek to educate and motivate future generations to have high regard for water generally and the world's oceans particularly in order to ensure a safe and sustainable future.

Lowell Sheppard

Rookie Sailor Lowell Sheppard is about to embark on the journey of a lifetime – sailing solo across the Pacific Ocean, through the Garbage Patch, via a place he is calling Nemo North and onwards to see his mother who is isolated in a Canadian Care Facility.

Lowell Sheppard is an author, speaker, social entrepreneur, former minister, Fellow of the Royal Geographic Society, husband, father, long-distance cyclist, and aspiring sailor. Lowell has spent his entire adult life working with established non-government organisations (also known as non-profit societies) and in several NGO start-ups. As Founder of HOPE International Development Agency Japan and Asia Pacific twenty years ago, Lowell has seen the growth of HOPE to be in the top 2% of charitable organisations in Japan with the coveted "nintei" certified tax-deductible status.

Lowell has served for the last twenty years as an informal advisor to companies and boards in the area of ethical decision making and thought leadership with a focus on community legacy. He has dedicated much of his life to social and environmental improvement projects.

Lowell's PACIFIC SOLO expedition is under the umbrella of Navigate22, a sustainability and education consultancy. Pacific Solo will serve as a motif for exploration, sustainability, goal setting, and achievement.
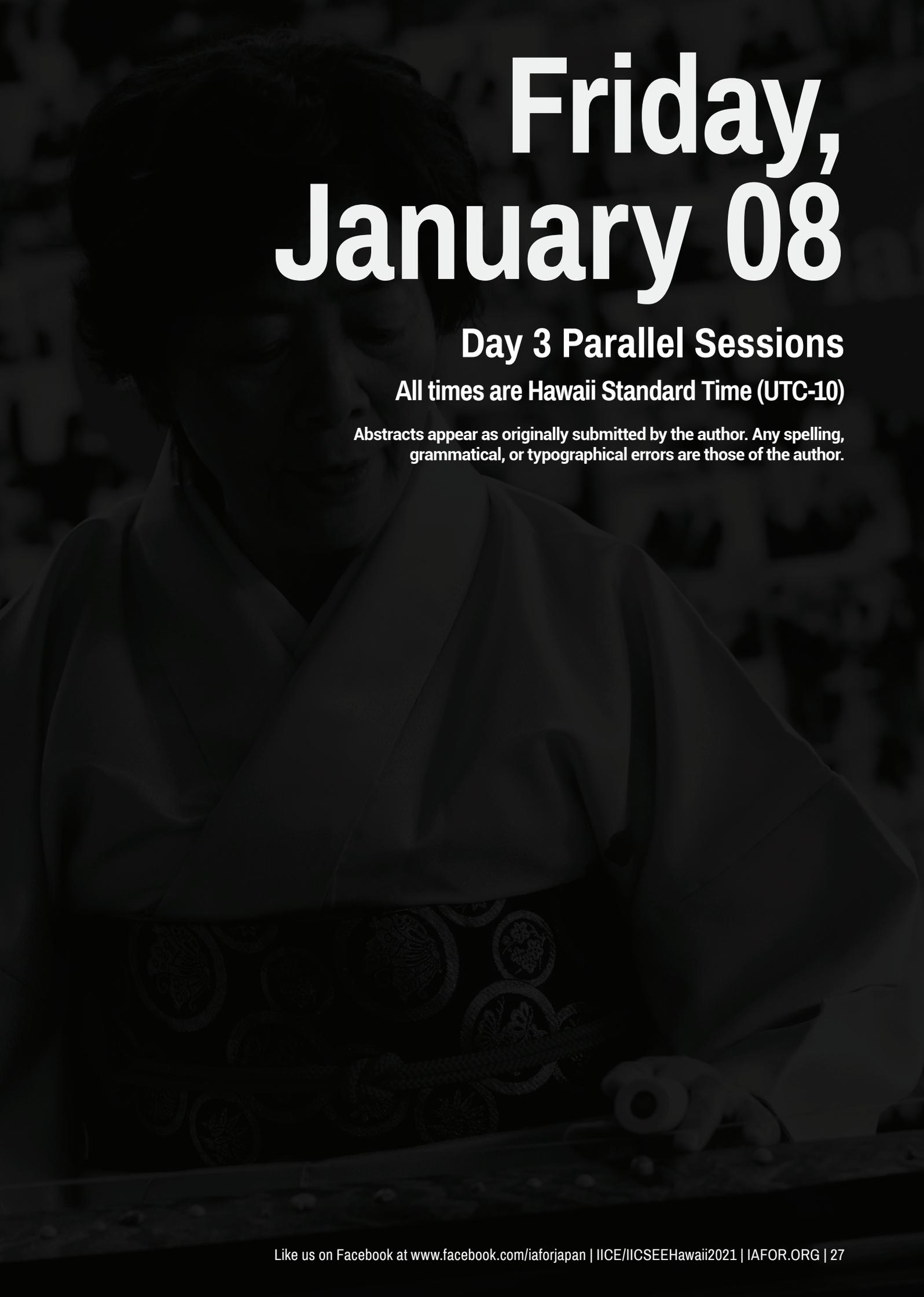
Friday, January 08

Day 3 Parallel Sessions

All times are Hawaii Standard Time (UTC-10)

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

13:00-14:15 | Hawaii Standard Time (UTC-10)
Friday Live Stream Session 1: Room A
Session Topic: Climate Change
Session Chair: James W. McNally

58260   13:00-13:25
The Climate Road – A Multifunctional Climate Solution That Both Produce Green Energy and Collects Rain
Theis Raschou Andersen, VIA University College, Denmark
Søren Erbs Poulsen, VIA University College, Denmark

Since the Climate Road were establish in 2018 in a residential area of Hedensted, Denmark, it has demonstrated a novel climate adaption technology. The Climate Road is a multifunctional climate adaption solution combining a collective, ground source heat pump (GSHP) based heating with sustainable urban drainage of rainwater (SUDS). The climate road is 50 m long and made of permeable asphalt. In the event of rainfall, the surface water percolates through the asphalt and into the roadbed. The roadbed is 1 m thick and comprises of gravel mix with a porosity of 30 % transforming the roadbed into a large reservoir that can handle a quantity of surface water equivalent to 120.000 L. 800 m of geothermal piping is embedded in the roadbed and collect the water's heat energy before redirecting the water to a nearby rainwater reservoir. At present, the Climate Road is able to satisfy a nearby kindergarten's annual heating needs of approximately 50,000 kWh. Another important aspect with the Climate Road is to directly involve the area's residents, the local schools and kindergarten in the project in order to increase the awareness within the citizens of the area about the present and future climate challenges as well as introduce the climate road as study case from the local schools. This presentation will focus on the results obtained from the Climate Road but also address the story behind the construction and citizen involvement.

59550   13:25-13:50
Resiliency Scoring and Geospatial Community Distribution of Resilience Hubs: A Maui Case Study
Alexander de Roode, KTH Royal Institute of Technology, Sweden
Ivo Martinac, KTH Royal Institute of Technology, Sweden

Deploying resilience hubs and resilience hub networks is a critical tool for communities seeking to address climate change impacts and increase community resiliency. In order to optimize the siting of resilience hubs in communities, critical factors such as hazard risk exposure and optimizing geospatial distribution based on target populations being served should be considered. This research provides a framework and assessment tools for optimizing resilience hub siting using a resiliency scoring matrix methodology and a geospatial distribution selection methodology intended to assist communities in serving target populations. The Island of Maui, Hawaii is used as a case study to demonstrate the application of these methodologies and their applicability for other communities. This research builds on prior resilience hub research that defines community resilience and discusses methodologies for community engagement and the scaling up of resilience hubs initiatives in remote, island, and coastal communities. The primary goal of this research is to provide practitioners and community stakeholders with a concrete framework that can be used to optimize the allocation of limited resources available to communities seeking to deploy resilience hubs and resilience hub networks.

59531   13:50-14:15
An Assessment of the Effect of Cultural Values in Policy Making (Work in Progress)
Eduardo Ordonez-Ponce, Athabasca University, Canada
Carlos R. Perez, Independent Scholar, Canada

The Paris Agreement was signed in 2016 to strengthen a global response to the climate emergency and keep the global temperature below 2 Celsius degrees above preindustrial levels. To address this challenge, 88 jurisdictions from all over the world have committed to implementing carbon-pricing mechanisms to achieve their 2030 target emissions reductions. Successful implementation of these carbon-pricing initiatives is essential to tackle more than 22% of global greenhouse gas (GHG) emissions and minimize negative economic impacts. Previous studies have found that neglecting cultural values in environmental policy development leads to undesired outcomes, an argument used to explain part of the failure of the Millennium Development Goals (MDGs). This paper investigates the relevance of the jurisdictions' cultural values for climate policy development and implementation. In this study, we analyze the moderating effect of culture on climate policy instruments and its impact on economic growth in 50 selected jurisdictions that have implemented carbon-pricing initiatives. The paper utilizes Hofstede's cultural dimensions framework and regression analysis. We expect that a better understanding of the effects of culture on the design of carbon-pricing instruments would help policymakers in the implementation of carbon instruments, as these are culturally relevant and context-oriented, improving policy acceptability and implementation.

14:25-15:15 | Hawaii Standard Time (UTC-10)
Friday Live Stream Session 2: Room A
Session Topic: Industry, Innovation & Infrastructure
Session Chair: Will Baber

59164 14:25-14:50
Enhanced Policies to Conserve Private Land with High Nature Values in Hong Kong
Tsz Fung Poon, National University of Singapore, Singapore

Introduced in 2004, the New Nature Conservation Policy (NNCP) aims at enhancing the conservation of 12 priority sites identified by the Government which are in private ownership. While these policies have achieved success in sites like Sha Lo Tung and Lai Chi Wo, most locations with high ecological values remain held and stockpiled by private developers which took housing and infrastructure development as their priority. Balancing the demands of development against the needs of resource conservation is a pressing imperative for Hong Kong to avoid its natural environment being threatened and allow minimal development project for future needs. This paper investigates the effectiveness and limitation of NNCP and does an international scan on the policies implemented by different countries in private land conservation. With the unique development needs in Hong Kong and the fact that most land with high conservation values was held by private developers, this paper suggests an innovative model that incorporates conservation easement and land stewardship into the current management associate programmes and public private partnership schemes.

59044 14:50-15:15
Business Revenue Along Protected Bike Lanes in Pacific Northwest Cities
William Campbell, Harvard University Extension School, United States

Vehicle emissions are the largest source of greenhouse gas (GHG) emissions in the Pacific Northwest. In Washington State alone, 44.6% of all GHG emissions are transportation related. One way to reduce emissions is to increase bicycle mode share. However, for biking to be a viable option, commuters must feel safe and connected on their journey. The best way to improve bike safety and connectivity is to install protected bike lanes. The primary arguments against installing protected bike lanes come from private businesses concerned with the impact of bike lanes on their revenue prospects. Essentially, businesses frequently believe that protected bike lanes take away curbside parking spaces and limit customer access to their establishments and thus lower business revenue. The intent of this research was to test this idea and determine the impact of protected bike lanes on business revenue. Through a blocked research design, I performed a statistical analysis on two similar thoroughfares each in Seattle, Portland, and Vancouver. Each thoroughfare was an arterial street. One had a bike lane installed, another, parallel to the first, did not. Five years of revenue data were gathered using surveys and Dunn & Bradstreet's corporate database. I discovered that protected bike lanes have no negative impacts on business revenue. In Seattle and Portland protected bike lanes averaged a 3% revenue increase above the parallel control streets. Some business types realized greater gains than others; primarily those in food and beverage.

Friday Live Stream Session 3: Room A

Session Topic: Education in times of COVID-19

Session Chair: Alex Means

59548   15:25-15:50
Population Statistics for Explaining the Impacts of COVID-19: Unusual Time Call for Usual Measures
James McNally, University of Michigan, United States

Epidemics and other health crises impact the way we measure, understand, and teach population statistics. The discipline of demography had had a significant impact on the development of useful techniques in the rapid assessment of changing population dynamics. This presentation will discuss different approaches to the measurement of mortality and healthy life expectancy while using estimation approaches that address uncertainty in continually changing measures of disease and death. While the COVID 19 pan-epidemic represents the current crisis impacting all nations in different ways, these tools are equally useful in the face of other health emergencies such as flooding, famine, and other types of population instability. Using measures of mortality, hospitalization, and infection for the current COVID 19 epidemic, the presentation will explain how to educate students and naïve users of health statistics on how to measure the progress and the trajectory of major health events. Concepts such as the difference between relative risk and absolute risk, measures that have caused considerable confusion reporting, will be explained, and guidelines provided to allow students to calculate these statistics in a classroom situation. We will review more advanced approaches, such as indirect estimation techniques, as they play an essential role in predicting the trajectory of the population health event when official measures are challenging to obtain. The COVID 19 pan-epidemic represents the latest in a long series of population health events. Still, the tools and techniques of demography play a vital role in understanding how these processes affect unique populations in different ways.

59388   15:50-16:15
Future Scientists' Views of the Interactions Between Different Social Groups in the Context of the COVID-19 Pandemic
Audrey Groleau, Université du Québec à Trois-Rivières, Canada
Gabriel Lecompte, Université du Québec à Trois-Rivières, Canada

Scientists are often asked to participate in the debates and decision-making processes related to current technoscientific issues as the Covid-19 pandemic. However, they are not always trained to enact those roles. We conducted 30 to 60-minutes interviews with future scientists in which we spoke about different aspects of the management of the Covid-19 pandemic. In this presentation, we will examine future scientists' views of possible or desirable interactions between different social groups in the context of the Covid-19 pandemic using Rowe and Frewer's (2005) typology of public engagement mechanisms (information, consultation, participation) and Callon's (1999) models of relationships between citizens and scientists (public instruction, public debate and knowledge coproduction). We will also discuss the consequences of those views regarding the interactions between social groups for the training of scientists.

59465   16:15-16:40
Response and Reflection on COVID-19
Minako Inoue, Health Science University, Japan

The COVID-19 pandemic has significantly disrupted higher education worldwide. In this regard, multiple issues have emerged that affect the stakeholders, including school administrators, staff, faculties, students, and their parents. Facing tremendous changes, it is imperative to ensure that the quality and equality of education remain unaffected, to create an effective and supportive educational environment. This study reports the experience of a small private university in Japan. During the spring semester of 2020, the school employed three modes of instruction, namely home assignments, online classes, and face-to-face. These modes were adopted in response to the threat posed by COVID-19 and is a departure from solely face-to-face instruction practiced earlier. Descriptions of each type of instruction, including its aims and planning, implementation, and evaluation phases are presented. The survey was conducted on 200 students to reveal their perceptions, experiences, and difficulties during the semester. The survey data were entered in SPSS for descriptive approaches as well as correlational analysis. The ultimate goal of this study is to identify the major challenges faced by universities and to propose possible solutions through information sharing. Amidst the uncertainty over when the pandemic would end, there is an increasing necessity for the reconceptualization of higher education. Furthermore, it is crucial to build a sustainable education model for the future with the innovation and cooperation of the stakeholders. It is hoped that this study will aid in developing a better understanding of the current situation and lead to the formulation of constructive measures.

Friday Live Stream Session 4: Room A

Session Topic: Education, Sustainability & Society/Culture Movements

Session Chair: Alex Means

59183   16:50-17:15

Socialist Education of China: Rejection of Social Justice of Indigenous Peoples on Tibet
Hari Jnawali, University of Waterloo, Canada
Sushila Sharma, Tribhuvan University, Nepal

This paper examines how China's failure to provide education in 'indigenous terms' has hurt the right to social justice of indigenous peoples on Tibet. The Constitution mentions that the state will make provision for the compulsory education, based on 'socialist undertakings'. But the socialist dimension of education does not address the educational needs and situations of indigenous peoples. It just makes the latter the recipient of what is imposed on them. The indigenous peoples want to be able to decide what kind of education their children would receive. But the Chinese government has been imposing the education that does not accord with the needs of indigenous peoples. Against this background, this paper examines- how does this education practice of China hurt the social justice and human rights of indigenous peoples? It argues that the state-imposed education system of China does not recognize the indigenous peoples as the agents of knowledge about themselves. It sees them as the ignorant population who need to be educated and trained. This practice transforms indigenous children into cadres who understand political ideologies rather than their own distinct realities and identities. In short, the lack of right to choose education hurts the right to social justice of indigenous peoples.

59392   17:15-17:40

Fostering Better Conversations About Complex Global Issues Using Majlis Style Debate, Systems Thinking and Social-emotional Skill Development
Jennifer Geist, Doha Debates, Qatar

Educators and students across the world are ready for more productive dialogue and critical thinking that leads to real problem solving as we learn about the complex, critical issues of our times. Doha Debates positions "majlis" style debating as a search for common understanding, building consensus, organizational learning, and planning and implementing joint interventions. Society needs debate and dialogue - it's how new ideas are surfaced and innovation is born. It's how societies learn and evolve. Debate is not a war of words, it's a set of skills and mindsets that support productive conversations and help us deal effectively with local problems, as well as global problems. Doha Debates hosts discussions on the world's most pressing challenges to bridge differences, build consensus and identify solutions. For educators we offer a comprehensive guide to develop the skills and knowledge needed to significantly raise the quality of discourse possible in our classrooms (virtual or face to face), as well as inspire students to take action for real change. This interactive workshop will explore how systems thinking, inclusion of diverse world views and evolved communication skills really can improve learning outcomes while equipping the next generation with the competencies they need to thrive in these challenging times.

59385   17:40-18:05

LGBTQ in Interpreting Discourse – Gender Gap between Japanese and English
Masako Mouri, Nagoya City University, Japan

Japanese as a language has role languages, i.e. male language and female language. Native Japanese speakers naturally understand and distinguish speakers' gender from discourse or utterance in Japanese. It is, however, difficult to convey a real sense of message with role language characters through interpreters between Japanese and English, depending on the gender difference between speakers and interpreters. This is because English translation from Japanese does not have role language characters and usual discourse or utterance in English does not carry any specific role language characters, which sounds quite neutral or unisex. This does not cause any challenges in the case that speakers' gender is the same as their physical gender (sex), but that sometimes causes misunderstanding and confusion in the case that speakers are characterized as LGBTQ and their gender does not correspond with their visuality. The LGBTQ issue has been acknowledged gradually in Japan, but unfortunately, there are still some people who have not acquired proper knowledge about LGBTQ. Therefore, it sometimes triggers the doubt or misunderstanding that the people with LGBTQ try to pretend or cheat their characters. This will get worse when they need interpreters because there is a huge gender gap in discourse. The author experiences confusion and challenging issues when it happens at the criminal court in Japan, in particular. With authentic discourse data, the author would like to explain situations, confusion, challenges as an interpreter, and results that came out at the end.

Friday Live Stream Session 5: Room A
Session Topic: Interdisciplinary Topics on Green Issues
Session Chair: Amanda Mueller

59348   18:15-18:40
Social Impacts of Coal Usage at Residents of Ger District in Ulaanbaatar, Mongolia
Enkhchimeg Battsengel, Tokyo Institute of Technology, Japan
Takehiko Murayama, Tokyo Institute of Technology, Japan
Shigeo Nishikizawa, Tokyo Institute of Technology, Japan

The municipal solid waste of coal combustion is one of the main environmental problems in Ulaanbaatar, especially in the area of "Ger" districts due to lack of heating system and no waste management [D. Altantuya et al., 2012 and B.Byamba et al., 2017 and Delgermaa et al 2016]. The coal ash is disposed of in wintertime from each household in ger districts which contains approximately 49% of waste disposes of Ulaanbaatar [Ulaanbaatar Waste Management Improvement Strategy and Action plan]. Our previous study assessed the human health risks of heavy metals in soil on the ger districts of Ulaanbaatar [B. Enkhchimeg et al, 2020]. The results showed that elements of Cr and As were ranged the risk for human health from soil near their street in ravine and waste points. Those elements in coal were ranged to possible to transition for the human body by three pathways. Therefore, to protect the environment and public health of those living in the Ger area, the risk management study should be performed. This study is continuing our previous study that was necessary to consider the risk communication of environment and human health issues on coal ash and coal usage at ger residents due to there is no research related to the risk communication between coal usage and residents in Ger district of Ulaanbaatar city. According to our objectives, the subjects determined how the expose from coal usage through three pathways based on the questionnaire survey.

59177   18:40-19:05
A Historical View of Addressing the Connectivity of the Green Infrastructure by the Urban Plans
Oana Cătălina Popescu, Ion Mincu University of Architecture and Urbanism, Romania
Alexandru-Ionuț Petrisor, Ion Mincu University of Architecture and Urbanism, Romania

Urban ecology sees today the city nature as a green infrastructure providing ecosystem services to the urban dwellers, contributing to their welfare and a sustainable urban development. However, the concepts included in this view are not as new as it seems. Ecosystem services are just a reiteration of the ecological economy view of nature as a natural capital providing goods and services to the human society. Similarly, although increasing attention has been paid lately to the green infrastructure and its role in addressing challenges faced by the modern society, including the mitigation of climate change effects, it is less known that the concept, that started being used relatively recently, in the '90s, has emerged at the end of the 21st century in the works of the prominent landscape architects and urban planners Frederick Law Olmsted and Ebenezer Howard. They argued in their projects, revolutionary for that time, for the need to combat urban sprawl through a strategic planning of vegetated systems and corridors, known today as "green infrastructure". The designed components of the systems of urban parks and green spaces are similar to those of the "green infrastructure", consisting of nodes (core areas/hubs) and connections. The relationship between nature and human well-being (known today as "ecosystem services") and sustainability was also anticipated by their works. Most importantly, these early researches demonstrated that the green infrastructure is not optional, but must be strategically devised, holistically planned, and properly managed. This work aims to revisit the old works from a modern perspective.

Friday Live Stream Session 2: Room B

Session Topic: Teaching Experiences, Pedagogy, Practice & Praxis

Session Chair: Curtis Ho

58983   13:00-13:25

Making Learning Pop: Pondering Online Pedagogy in Teacher Preparation Program
Stacy George, University of Hawai'i at Manoa, United States
Rayna Fujii, University of Hawai'i at Manoa, United States

Teacher preparation programs must provide teacher candidates (TCs) opportunities to engage with online pedagogies with recent global events serving as a catalyst to push online learning to the forefront. This study examines teacher candidates' perceptions of the development of their online pedagogical skills and strategies through participation in supplemental field experience as part of their teacher preparation program (TPP). This study addresses the question of: How did teacher candidates perceive the development of their online pedagogy and practices when engaging in a supplemental teaching experience? A total of 17 Elementary Education teacher candidates are slated to participate in the study. Participants will engage in multi-day planning and teaching STEM and college and career readiness event with elementary-aged students in their local community. This qualitative case study will follow the progress of TC online pedagogy development throughout the process from planning and preparing to the execution of the event. Data collection will include open-ended questionnaires, observations of TCs (video footage from planning to implementation), evaluation forms, and personal TC reflections. This study aims to uncover implications that might inform TPPs further on how to support TCs acquire pedagogy for online learning to serve the rapidly growing number of elementary students learning from a virtual space.

59528   13:25-13:50

The Effectiveness of Online Portfolios for Assessment in Higher Education
Faith Nightingale, Queen Mary University of London, United Kingdom
Alan Allman, Queen Mary University of London, United Kingdom
Agne Kocnevaite, Queen Mary University of London, United Kingdom

The use of online portfolios for both summative and formative assessment is an important part of blended learning. At Queen Mary University of London Engineering School (QMES), English Language and Professional Development Planning modules utilised portfolios as one of the ways for formative assessment. Students kept individual and group portfolios throughout the academic year to upload a variety of tasks, including reflections, videos, posters and tasks based on course material from other modules, such as report methodology and results and discussion section. The teachers provided ongoing feedback on student work to encourage development and improvement throughout the semester. Despite the initial issues of setting the portfolio, such as lack of familiarity with the software and regular engagement, over time, portfolios have proven to be an incredibly valuable way to introduce blended learning to the course. This type of assessment is particularly relevant given the recent move to online learning platforms due to Covid-19. A student survey assessing the effectiveness of this type of assessment, the range of tasks, the ease of use and the feedback given was conducted. The results, pedagogy and broader applications of online portfolios will be discussed in this presentation.

59504   13:50-14:15

From Tacit Knowledge to Explicit – LBD Pedagogical Practices Taken for Granted Made Visible in an Online Course
Tero Uusitalo, Laurea University of Applied Sciences, Finland
Jari Kyrö, Laurea University of Applied Sciences, Finland

Learning by Developing (LbD), is a pedagogical strategy of Laurea University of Applied Sciences for almost 15 years. It is based on authentic co-operation between teachers, students and working life partners. In practice, LbD means that Laurea students are studying in working life projects.

Theoretical framework in the article is based on LbD, Tacit Knowledge and the SECI-model. Long use of the LbD model has resulted in documented research as well as numerous unwritten practices. Those teachers that have specialized in LbD pedagogy have formed informal knowledge community. They share experiences, practical ways of implementing the model and furthermore develop the theoretical model as well. In the spring 2020, our team was preparing the online course of LbD for university teachers globally about how to implement LbD in practise. The article tells a story of what we discovered when we formalized and made visible tacit knowledge of LbD and many practices associated with the LbD pedagogy. We noted that the basic steps of the LbD model are easy to communicate and make visible. When we dived deeper into LbD practices and details it became harder even for seasoned expert to express things clearly. Tacit knowledge was unearthed through dialogue. Dialogue-like working required an atmosphere of trust, lack of hierarchies, lack of defensiveness on part of the expert and persons with mixed level of expertise so that there was both dumb questions and room to ask them.

14:25-15:15 | Hawaii Standard Time (UTC-10)
Friday Live Stream Session 1: Room B
Session Topic: Education Policy, Leadership, Management & Administration
Session Chair: Barbara Lockee

59054   14:25-14:50
Japanese University Student Opinions Towards the Shift Towards Online Instruction: An Examination of Student Voices
Jeffrey Trambley, Musashino Gakuin University, Japan

Due to the COVID-19 pandemic, university administrators around the world were forced to move instruction online at lightning speeds to protect the health of both students and faculty in February and March of 2020. In Japan, the onset of the pandemic coincided with the beginning of the academic year in April with the majority of universities moving to online instruction within a few weeks after a state of emergency was enacted by the Japanese government/ Japanese universities are now in the process of making decisions about the shape of instruction for the second term set to begin in late September 2020 with many already opting for continuing online instruction. The current paper examines university student attitudes and opinions towards continuing online instruction using qualitative data from surveys of first and second-year students conducted at one Japanese university. The initial survey from July 2020 before online instruction was decided for the second term, showed that most students believed online was the best option going forward. The follow-up survey in August 2020 gauged student reactions to the official decision to stay online in the second term and further attempted to understand student opinions regarding support they require going forward with online instruction. As universities make these challenging decisions, the research highlights the importance of understanding student voices to enable universities to provide support to students as they deal with continued online instruction.

59519   14:50-15:15
Strengthening the Quality of Teacher Education Through School-University Partnerships
Nicole Schlaack, University of Hawaii, United States

Professional Development Schools promote connections between schools and teacher education programs. These partnerships are thought to benefit teacher candidates, teachers, and teacher educators through promoting positive and collaborative relationships and bridging the efforts of schools and universities. In the school year 2016-2017, seven public schools and a university teacher education institute started the first complex-wide Professional Development School in Hawai i. I explored the development of this partnership through interviews with three groups of stakeholders, observations of meetings and events, and analysis of program documents such as meeting minutes. I used the theoretical framework of Cultural-Historical-Activity-Theory and activity systems analysis to investigate these data and identify expectations, challenges, and successes of the complex-wide Professional Development School. This qualitative single-case study examined how participants interpreted and made meaning of their experiences in this partnership among the teacher education programs and the schools. Findings illuminated necessary procedures as well as supporting organizational structures in the development of the partnership such as building a professional community, creating a learning culture, and forming collaborative leadership structures. This research adds to the literature addressing school improvement and student learning in Hawai i.

15:25-16:40 | Hawaii Standard Time (UTC-10)
Friday Live Stream Session 3: Room B

Session Topic: Education & Difference: Gifted Education, Special Education, Learning Difficulties & Disability

Session Chair: Carmina Untalan

58906   15:25-15:50
Condition Branding & Resistance: An Analysis of Brand Sentiment of ADHD Among American Students and IAD Among Chinese Students
Brandon Chicotsky, Texas Christian University, United States

A marketing phenomenon called "condition branding" influences a wide scope of stakeholders impacted by Attention Deficit Hyperactivity Disorder (ADHD) and Internet Addiction Disorder (IAD). The Center for Disease Control and Prevention (2017) estimates 11% of American children are diagnosed with ADHD. The majority of the diagnosed population are under the age of 17 in the United States, with a substantial amount of diagnoses currently attending college. In China, IAD is associated with youth populations, which also extends to college students (Ni, Yan, Chen, & Liu, 2009). The current analysis investigates sentiments regarding ADHD and IAD treatments with condition branding as a central factor. The study's overarching question asks: "Is there any unfavorability among consumers regarding ADHD and IAD as a result of condition branding about which we are not aware?" Respondents of the study are college students recruited from four regional university environments of both private and public universities from the southwest, southeast, northeast, and northwest of the United States (for the ADHD test group) and Guangdong Province and Hebei Province in China (for the IAD test group). Students' opinions in the current analysis provide insight into principles that extend beyond national borders regarding potential backlash to condition branding. Cross-cultural inquiries are critical for identifying potentially generalizable results (Brislin, 1976), which informs academe while also empowering stakeholders impacted by, or directly involved in, condition branding campaigns.

59010   15:50-16:15
Amplifying Vulnerabilities: How COVID-19 is Impacting Japanese at Risk Youth
Sarajean Rossitto, Sophia University, Japan

There are 608 "Children's Homes" (児童養護施設 jidō yōgo shisetsu) across Japan caring for youth unable to live their parents for an array of reasons mainly abuse and poverty. According to the most recent data 13.9% (2020 OECD) Japanese youth live in poverty and in 2018, 159,850 child abuse consultations were made (2018, MHLW). Institutionalization of any kind is always difficult for youth as well for their caretakers. Inside the children's homes, the situation is difficult due to limited staff and tight budgets. The onset of COVID-19 has meant an increase in the need for support while at the same time a decrease in the support institutions could provide, putting an already vulnerable population at added risk. Based on interviews with leaders at leading non-profit organizations working with children from low income families and in Children's Homes, this examines the immediate difficulties faced during the emergency order when schools were closed and during spring/summer when youth returned to school. Interviews revealed both the needs faced by youth and staff as well as the potential long-term educational and social impacts.

59396   16:15-16:40
Children With PIMD/SMID's Expressive Behaviors: Development and Testing of Childside App – The First Step for Independent Communication and Mobility
Von Ralph Dane Herbuela, Ehime University, Japan
Tomonori Karita, Ehime University, Japan
Yoshiya Furukawa, Hiroshima University, Japan
Yoshinori Wada, Ehime University, Japan
Yoshihiro Yagi, Ehime University, Japan
Shuichiro Senba, DigitalPia Co., Ltd., Japan
Eiko Onishi, DigitalPia Co., Ltd., Japan
Tatsuo Saeki, DigitalPia Co., Ltd., Japan

Children with profound intellectual and multiple disabilities (PIMD) or severe motor and intellectual disabilities (SMID) communicate through movements, vocalizations, body postures, muscle tensions, or facial expressions on a pre-/protosymbolic level. Yet, to the best of our knowledge, hardly any system has been developed to collect their expressive behaviors and integrate it with location and environment data. Based on Scripts Theory and with the use of location and environmental sensing technologies, we developed ChildSIDE, a mobile app that collects caregivers' interpretation of children with PIMD/SMID's expressive behaviors with associated location and environment data. This study describes its design, development, and evaluation of its accuracy in terms of collecting behavior (versus paper-based collection) and transmitting location (iBeacon and GPS) and environment data (ALPS Sensors and OpenWeatherMap API) to the database. We utilized a cross-sectional-observational study design and conducted multiple single-subject face-to-face and video-recorded sessions among 20 child-caregiver dyads at a special needs school. We found out that the app was more likely to have complete and correct records than the paper-based method (P < .001) and was also able to detect and transmit location and environment data to the database with above 93% accuracy except for iBeacon (82.3%). Results also revealed that the expressive behaviors were manifested mainly through body and hand movements and vocalizations. Further, initial analysis on whether environment data would allow more accurate classification and prediction of major and minor categories of the expressive behaviors will be done using random forest, support vector machine, and neural networks algorithms.

16:50-18:05 | Hawaii Standard Time (UTC-10)
Friday Live Stream Session 4: Room B
Session Topic: Higher Education
Session Chair: Grant Black

59244   16:50-17:15
Service-Learning with Pre-Service Teachers
Tara Wilson, University of Texas Permian Basin, United States

Service-learning is an educational approach that combines coursework, community service, and work-based applied learning (Maddrell, 2014). Service-learning is beneficial for pre-service teachers because research elucidates a positive connection between participation in service-learning and student attitudes towards coursework and the course subject matter (Stoecker, 2014). This study describes a case study of a service-learning project in a junior-level children's literature class and then examine how service-learning impacted pre-service teachers' ability to generalize literacy and language arts concepts to real-world classroom settings and to move from theory and practice. The service-learning aspect was a component of the course Literature in the Classroom, a required junior-level educator preparation course. Data, in the form of pre-during-post service-learning reflections, were collected from the twenty-two pre-service teachers who were enrolled in the course. The results of the pre-service teachers' reflections are reported and discussed. Educational implications and future research opportunities are also provided.

59046   17:15-17:40
Influences to the Navigational Capital of Women of Color STEM Majors in the Community College
Melo-Jean Yap, San Diego State University, United States

Community colleges serve as a primary access point to higher education for underrepresented groups in the STEM fields. Centering the standpoint of women of color STEM majors can lead to insights about better serving them. A name generator technique was used via an ego-centric social network analysis questionnaire to obtain influences to 36 women of color STEM majors in a two-year Hispanic-Serving Institution in a Southern California urban area. The influences pertain to (1) social modeling, (2) notion of diversity, (3) academic acculturation, (4) STEM career transformation, and (5) career morale. Nominations were then categorized by relationship to participant, and logistic counts were performed on whether a participant nominated in a categorical relationship (equal to one) or not (equal to zero). Results revealed 91.67% of participants nominated family members, 63.89% named college faculty and staff, and 47.22% identified K-12 educators as the greatest influences to their navigational capital in the community college. Family nominations had the highest impact on social modeling and career morale, while college faculty and staff on academic acculturation. Both family and college faculty and staff substantially impact the STEM career transformation pathways of participants. Peers on- and off-campus also influence women of color after the above relationship groups, especially in impacting how participants think about diversity of ideas and people in the STEM fields. In conclusion, a diversity of relationships provides a comprehensive source of influence and empowerment for women of color STEM majors in the community college.

59023   17:40-18:05
Service Learning and Active-citizenship Learning to Enhance Environmental and Societal Sustainability
Ingrid Geier, Salzburg University of Teacher Education, Austria
Ulla Hasager, University of Hawai'i at Manoa, United States

Democratic and intercultural competence is regarded as the key competence of the 21st century and is central for a sustainable future. It is defined as the ability to promote important values, attitudes, skills, knowledge and thinking in order to be able to respond efficiently and appropriately to the demands and opportunities arising from exchanges in democratic and intercultural situations. The contribution shows that learning pedagogies like Service learning and Active-citizenship learning play a crucial role to support democratic awareness and the associated values and to help achieve the global goals for sustainable development. Both concepts ensure inclusive and equitable quality education and can promote lifelong learning as projects help to engage with problem-solving also together with the community. This can be seen in projects that focus on equal opportunities in education, injustices due to social background or migration, project focussing on equal rights or civic issues particularly around sustainability. Results show these pedagogies significantly support a culture of democracy. Students have knowledge about volunteering, are interested in political events or in issues of social justice. It is important for them to contribute their own competencies to society, to interact and collaborate with people from different backgrounds and have an awareness of other people or the impact of their own actions.

Saturday, January 09

Day 4 Parallel Sessions

All times are Hawaii Standard Time (UTC-10)

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

13:00-14:15 | Hawaii Standard Time (UTC-10)
Saturday Live Stream Session 1 : Room A
Session Topic: Teaching Experiences, Pedagogy, Practice & Praxis/Language Teaching
Session Chair: James Briganti

59436   13:00-13:25
Collaboration Between Content and Language Teachers at University: Experiences From a Longitudinal Project
Marta Kopinska, University of the Basque Country, Spain
David Lasagabaster, University of the Basque Country, Spain
Aintzane Doiz, University of the Basque Country, Spain

As a key element of the internationalization process, the multilingualism program, which fosters English-medium instruction at the University of the Basque Country (UBC) in Spain, forms an integral part of the university's teaching practices. However, both the teachers and the students participating in this program highlight their fears and insecurities resulting from their low foreign language competence, which is recurrently described as one of the main stumbling blocks they have to face in their classes. These difficulties might be addressed by promoting the collaboration between content teachers and language specialists, as suggested by Coleman et al. (2018), Lasagabaster (2018), and Macaro et al. (2018), among others. In this paper, we will expose the major lines of a research project carried out at the UBC, in which a team of language teachers and content teachers have been collaborating since 2017 with the aim of promoting the linguistic development and the acquisition of specialized language from the area of History, which should eventually benefit content learning. It is worth remembering that this type of collaboration is rare in European higher education institutions. A number of sessions were recorded, transcribed and further analyzed in order to identify the necessities of each teacher and their students. Students were given "linguistic pills" that covered some linguistic aspects and skills that were in need of language teachers' support. The findings of the project will focus on the main benefits and challenges that have been observed during the longitudinal collaboration in this team-teaching experience.

59409   13:25-14:15
Workshop Presentation: Reading, Writing, Listening and Speaking: The Integration of Literary Text to the Language Curriculum
LaVerne Seales, California Lutheran University, United States

Specifically designed for Language Instructors and using ACTFL Proficiency Guidelines, this workshop will explore how the inclusion of literary text in language courses in the United States can not only significantly foster the development of reading, writing, listening, and speaking in the foreign language, but can also allow students to learn about the history and culture of different countries. As examples, participants will use Afro-Cuban writers: Nicolás Guillén's "Balada de los dos abuelos" and Nancy Morejón's "Mujer negra," poems as they relate to the Spanish Speaking World. These two examples will also allow participants to consider how to integrate minority voices and perspectives into their courses. Integrating similar authors across languages is crucial as we consider the lack of representation of minority voices in our language curriculum. Participants will leave this session with concrete, practical applications, tips, and activities that they can use and adapt to their different language courses at both the high school and college levels.

Saturday Live Stream Session 2: Room A

Session Topic: Foreign Languages Education & Applied Linguistics (including ESL/TESL/TEFL)

Session Chair: James Briganti

57257   14:25-14:50

Stories on YouTube: Can This Be an Effective Learning Tool to Improve Listening and Reading Comprehension Skills?
Narangerel Tsedendamba, Mongolian National University of Education, Mongolia
Otgonsuren Gungaarentsen, Mongolian National University of Education, Mongolia

Use of online learning opportunities among language teachers and learners has become one of the commonly utilized tools as they provide effective means (convenient, accessible, authentic and sometimes free) to learn a foreign language. Research shows that online learning opportunities, particularly YouTube – a popular video sharing and viewing platform creates more meaningful and independent learning environment (e.g. Alhamami, 2013; Benson, 2015; Lacy, 2008). This research reports on how two English language lecturers at a Mongolian University used stories available free of charge on YouTube to help students improve their listening and transfer of skills such as pronunciation, reading comprehension, note taking and speaking. The two lecturers took their students' desire to learn English on YouTube and developed learning tasks to do independently outside the classroom. The research project was implemented for a period of one year among first year English as a foreign language students. The study results show that when learning content is easily accessible (ability to listen outside the classroom, on their phones, when traveling and walking etc.) and when there is a genuine desire to listen to an interesting story of their choice, students are more likely to effectively work on the learning tasks associated with the stories which in turn helped them to develop their language skills efficiently. However, limited access to WiFi or Internet, not seeking available support to execute the task were seen as issues to develop the skills and independent learning style, despite a strong desire to learn English using YouTube.

59007   14:50-15:15

A Study of the Mutual Phonetic Resemblance Between Japanese Kyoiku Kanji and Chinese
Yuji Obataya, Geneva University, Switzerland

This study investigated the mutual phonetic resemblance of Chinese ideograms between Japanese and Chinese using the official list (expanded in 2020) of Kyôiku kanji (Chinese ideograms in Japanese, taught at elementary school). The aim of this analysis was to determine ways to help learners from non-kanji backgrounds to quantify the phonetic gap between these two languages. First, since most kanji symbols can be read in multiple ways (on'yomi [Chinese reading in Japan] and kun'yomi [Japanese reading]), the rate of the use of on'yomi in each of the 1,026 kanji was calculated as 66.1% by accounting for the factor of the frequency of all 9,292 words that contain these kanji and are classified in the Japanese-Language Proficiency Test word list. Second, twelve Chinese native speakers were surveyed using questionnaires (with a rating score of 0–100%) about the phonetic approximation between on'yomi in each of these 1,026 kanji and Chinese reading in China. In this survey, no noticeable trends were identified between each rating score and the four Chinese tones. However, the statistical analysis of Pinyin decomposed into vowels and consonants revealed the following findings: (a) the rating score was high for characters beginning with a vowel; (b) the score was high for characters that contain apical consonants (a mean value of 32.6) or labial consonants (25.8); and (c) almost all characters that contain retroflex consonants (in particular, "zh" [mean 7.5], "r" [7.5], and "ch" [10.6]) were identified as having no phonetic similarity with their Japanese counterparts.

15:25-16:40 | Hawaii Standard Time (UTC-10)
Saturday Live Stream Session 3: Room A
Session Topic: Teaching Experiences, Pedagogy, Practice & Praxis

Session Chair: Cynthia Northington-Purdie

59019   15:25-15:50
Challenges Presented to Paraguayan Teachers by the Measures Adopted Due to COVID-19
Valentina Canese, Universidad Nacional de Asunción, Paraguay
Jessica Amarilla, Universidad Nacional de Asunción, Paraguay

Due to the pandemic caused by COVID-19, educational systems around the world have been disrupted as they were forced to stop face-to-face classes in at least 70% of institutions. Paraguay was not the exception, interrupting classes early and abruptly forcing teachers to quickly adapt to this new reality. This mixed quan-qual study presents an analysis of teachers' views on the challenges posed by access to technology, teacher training, student and parent limitations in Paraguay. Data were collected using a questionnaire consisting of open and close-ended questions administered during the first weeks of the quarantine. The sample included 1030 teachers from public and private institutions at all levels. Qualitative data were organized according to teacher's access to technology, teacher training before and after the quarantine, student and parent communication and difficulties. The quantitative analysis involved univariate descriptive statistics as well as chi square statistics associating level of difficulty with teacher characteristics such as location, internet connection, experience, ICT use, and ICT competence. Results show that the main difficulties are associated with internet access, the frequency of ICT use and the scarce training in the use of educational ICTs as well the change in the structure of the classes. Opportunities noted by teachers include the creation of a new "collective conscience," and "restructuring the current systems." As ensuring the continuity and quality of education constitute the main challenges in this new context, it is imperative that educational institutions focus on teacher training and support.

59518   15:50-16:15
Teacher Candidates' Experiences With Distant Learning in the Initial Year of COVID-19
Monica Smith Gonzalez, University of Hawaii, United States
Nicole Schlaack, University of Hawaii, United States

Teacher preparation programs across the globe grapple with the struggles of educating prospective teachers in the era of the COVID-19 pandemic. Methods of instruction include distance learning, hybrid models, or simulation activities. As teacher educators utilize novel instructional approaches to prepare teacher candidates for classroom instruction, challenges emerge, and lessons are learned, but what are they? Research on pandemic teacher education is new and scarce. This multiple case study investigation, grounded in situated learning theory (Lave & Wenger 1991), explores how 12 undergraduate, elementary education teacher candidates explored teaching in a distant learning environment and how they sought to improve student engagement. Findings gleaned from focus groups, and self-reflection narratives suggest strategies for student engagement specific to online classroom instruction. The research offers recommendations how teacher preparation programs may respond to the benefits and challenges that rise with distant learning and increased use of technology in the classroom.

58945   16:15-16:40
The Influence of Theory-Practice Hybrid Spaces on the Practices, Theories, and Relationships of Teacher Candidates
Kevin O'Connor, Mount Royal University, Canada
Gladys Sterenberg, Mount Royal University, Canada

This paper investigates the influence of theory-practice hybrid spaces (Zeichner, 2010) on the practices, theories, and relationships of teacher candidates. The context of the research is a Professional Development School (PDS) setting in an integrated, school-based, professionally-oriented final semester within a four-year teacher education program. Specifically, we are interested in how the implementation of a PDS model (Breault, 2013) impacts teacher candidates' relationships, practices, and theories. This qualitative study examines data from thirteen individual interviews of teacher candidates. Data was analyzed using qualitative methods to identify common themes on the impact of a PDS model on the relationships, practices, and theories of teacher candidates. Our analysis shows that these participants were significantly impacted by the co-facilitated workshops and the weekly seminars, two innovations within the implementation of the PDS model. Our study demonstrates how one university is strategically attempting to connect academic and school-based practices to support teacher candidates' ability to develop effective practice. Our research enriches public discourse through the building of relationships with school and university partners and will enhance 'a curriculum of place' (Chambers, 2008) that include teaching materials co-created with mentor teachers that directly reflect the places in which we dwell. This is significant as we build knowledge and understanding from disciplinary, interdisciplinary, and cross-sector perspectives as we learn how to implement a PDS model that will foster teacher candidates' development throughout a teacher education program and into the beginning and early stages of their career.

16:50-18:30 | Hawaii Standard Time (UTC-10)
Saturday Live Stream Session 4: Room A
Session Topic: Professional Training, Development & Concerns in Education

Session Chair: Cynthia Northington-Purdie

58662   16:50-17:15

Preparing Professionals to Address Educational and Programming Issues Impacting People With Down Syndrome and Alzheimer's Disease
Lisa Battaglino, Bridgewater State University, United States
Ashley Rodrigues, United States of America, United States
Maia Aucoin, Bentley University, United States

Often the serious consequences of Alzheimer's disease (AD) in Down syndrome (DS) are misunderstood and inadequately addressed due to a lack of understanding and sparse resources. 80% of aging individuals with DS present with symptoms of AD. This presentation explores related research and issues in education, programming, housing, employment, and transitioning. Over the past 40 years the life expectancy of people with Down syndrome has more than doubled from 25 years in 1983 to 60 years in 2020 due to advances in cardiac surgery, medications, updated treatments, and the elimination of inhumane institutionalization. As a result, ever increasing numbers of people deal with the issues faced when people with DS experience premature age related changes. While memory loss is an early predictor of AD in the general population, according to the Alzheimer's Association (2020) people with DS are more likely to experience other symptoms such as a reduction in being social, decreased enthusiasm for usual activities, a decline in focusing ability, sadness, fearfulness or anxiety, irritability, uncooperativeness or aggression, sleep disturbances, adult onset seizures, changes in coordination, and or increased excitability. Implications for professionals include addressing educational and programming needs for individuals and families and becoming knowledgeable of the signs of AD in students and clients with DS. Essential to the planning and implementation of effective programing is the development of strategies and behavioral supports to ease transitions, the creation of resources for families and care givers, and the recognition of the growing demands of older adults with DS.

58860   17:15-17:40

Critiquing the Faculty Appraisal and Promotion System in Higher Education: A Case of the Middle East
Saima Nomaan, Higher Colleges of Technology (HCT), Al Ain Men's College, United Arab Emirates

Faculty evaluations and appraisals by students and managers are considered central for teacher effectiveness and assessment globally and teacher tenure and promotions are generally dependent on these. While students' faculty evaluations (SFEs) and managerial appraisals (MAs) as considered effective tools for determining teacher efficacy, a lot of dissatisfaction with the existing methods of teacher evaluation has also been expressed. It has been observed that the appraisals scores and students' evaluation ratings negatively affect faculty and their perceptions of their professionalism. These tools of teacher evaluation create disaffection, insecurity, a sense of futility, powerlessness and disillusionment among teachers because of the power held by students and managers. Thus, this exploratory critical study problematises the faculty evaluation system and endeavours to gauge the faculty's perception about their appraisal and promotion systems in higher education in the Middle Eastern milieu and critically explores how these affect faculty's perceptions of their professionalism and motivation and create awareness concerning the issue. Using the critical paradigmatic research design, the data is collected by conducting interviews. The results indicate that contrary to institutional policies/proclamations, preferentialism as a form of discrimination was most exercised by the managers/coordinators who had the power to recommend a faculty's contract renewal or promotion. Similarly, teachers, as holders of knowledge, are rendered powerless in the decisions concerning their futures as students also emerge as a powerful entity in deciding their fate. The study makes a few recommendations to diminish organisational injustice, inequality and bias, and promote fairness and a just evaluation system.

59271   17:40-18:05

The Role of Administrators in Facilitating The Implementation of Tokkatsu in EJS: Learning from EJEP Trainees' Practices towards Egypt Vision 2030
Yasmine Mostafa, University of Fukui, Japan

This proposal is part of an ongoing research that started last year by an analysis of the first batch of trainees of Egypt-Japan Education Partnership (EJEP). It is a partnership for a professional development training program that was established between Egypt and Japan in 2016. The training program has started in 2019 (Mostafa, 2019) towards actualizing Egypt Vision 2030, and will run for four years. This program is based on Japan's holistic educational curriculum model, known as "Tokkatsu" or special activities. A comparison of the program's modifications and developments towards batches two and three was made (Mostafa, 2020) in another research. Consequently, this research did a convenience purposeful sampling of batch two trainees to analyze how the EJEP program has contributed to developing teaching methods and strategies. Up to this point, the research looked into the reports sent by those trainees before the training. This is to identify their practices and challenges while implementing tokkatsu within the new education system "Education 2.0". Also, the weekly reports that were submitted by the trainees during the training were investigated to analyze their comments and reflections on their practices in Egypt. Subsequent research steps are looking into the new practices and experiences these trainees have implemented upon their return to Egypt following EJEP to examine how the program is contributing to developing new methodologies and strategies through tokkatsu. It will also act as the base for modifications and developments towards the next batch training.

58299   18:05-18:30

Upholding Academic Integrity: An Institutional Response to Student Use of Contract Cheating Services
Christine Slade, The University of Queensland, Australia

Students paying online contract cheating services for individualized and affordable responses to their assessment tasks is a serious threat to academic integrity in universities. Australian universities were thrown into this arena due to public press coverage of the MyMaster contract cheating 'scandal' in 2015. This incident named prominent universities, numbers for student cheaters, details of payments, and more. Since then, Australian universities have sought to understand the extent of the problem, find ways to address practices, manage reputational risks, and demonstrate responses to the government regulator's requirements. Existing data matching software rarely detect these customized student submissions. Contract cheating services are readily available and promoted to students through social media, peers and direct marketing on internet browsers. Of particular concern are vulnerable students who may be persuaded by such marketing to use these sites, believing they are not doing anything wrong or have no thoughts of future consequences. This presentation provides insights into the thought leadership and practices of a large research-intensive metropolitan university in Australia, that is addressing this challenge, based on an institutional academic integrity action plan. Aspects of the plan include ensuring robust policies are in place; supporting academics in investigating breaches; taking appropriate action against misconduct; strengthening administration structures and practices; building an institutional culture of integrity; educating staff and students; strengthening assessment design; and exploring technological solutions. This presentation aims to inform participants and encourage discussion about the benefits and challenges of this approach as well as social learning about other academic integrity approaches.

Saturday Live Stream Session 5: Room A

Workshop Presentation

57441   18:40-19:30
The Poetry Box
Aaron Hahn, Teachers College Columbia University, South Korea
Jamie Ortolano, Fayston Preparatory Academy, South Korea
Silvia Trejo, Fayston Preparatory Academy, South Korea

Poetry has often been compared to abstract paintings over the years. However, it doesn't mean poetry composition lessons have to be always elusive and highbrow. In fact, even ESL students at any level can enjoy writing poems in English and develop their English language skills as well as literary talents through a simple method. Let us introduce, "The Poetry Box". This simple tool transformed an entire Korean high school into a community of burgeoning English poets and literature lovers as evident in the poetry anthology written by the students of Fayston Preparatory Academy. In this workshop, the creator and two practitioners of the method will offer unique and engaging classroom experiences along with activities including "The 5 Minute Poetry Challenge", "making the invisible visible" and "the visible invisible".

Saturday Live Stream Session 2: Room B
Session Topic: Learning Experiences, Student Learning & Learner Diversity

Session Chair: Sarah Louise Birchley

59282   14:25-14:50

LEEDing the Way: The SUNY Green Building Experiential Learning Collaborative

Mark Bremer, SUNY Polytechnic Institute, United States
Paul Crovella, SUNY College of Environmental Science and Forestry, United States
Rachel Kornhauser, SUNY Oneonta, United States
Zhanjie Li, SUNY Polytechnic Institute, United States
Alex Poisson, SUNY College of Environmental Science and Forestry, United States
Farzaneh Soflaei, SUNY Oneonta, United States

Recognizing the need for students to earn professional sustainability credentials and the desire for our higher education institutions to operate their facilities as sustainably as possible, we launched the project in 2018 at three SUNY campuses: Poly, ESF, and Oneonta. New green building courses were created, including courses for online delivery, incorporating experiential learning components based on the LEED Lab model and leading to LEED GA accreditation for students. Courses revolve around explaining the LEED series principles, and then involving students in LEED Operations and Maintenance certification of campus buildings. In addition to student workforce development goals, we are encouraging professional development among our staff and faculty by providing industry-preferred LEED training. In this session, we will share lessons learned from our three campus collaborative. Topics we will address include the advanced preparation required, course development, course delivery, results after the first year, and student feedback on their experiences. Discussion will include key considerations for project sequence and scheduling, advice to ensure campus staff and administrative buy-in, hurdles for certification that may be encountered, and differences between LEED v4 and the new performance-based LEED v4.1. The intent of the project is for the courses to become self-sustaining, and for the model to be replicable and scalable to other campuses. Participants will be provided materials to help them better evaluate the opportunity for implementation of similar efforts on their campuses. This presentation addresses United Nations Sustainable Development Goals 8 and 11.

59361   14:50-15:15

Project STEMulate: Student and Teacher Uptake of Problem-Based Learning Increases Underserved Youth Participation in STEM Careers

David Reider, Education Design, Inc., United States
Nanasi David, University of Hawaii, United States
Nahid Nariman, Transformative Inquiry Design for Effective Schools and Systems (TIDES), United States

The goal of Project STEMulate, a National Science Foundation ITEST study (# 1657625), is to develop, implement, and evaluate a program that fosters success for underserved and underrepresented high school students. The project was implemented at three sites of the Department of Education Upward Bound Program in Hawaii. Project STEMulate delivers teacher training and Problem-Based Learning curriculum to ensure students are motivated and empowered, and to support STEM-related postsecondary educational success of Hawaiian and Pacific Islander students. A critical design goal of the program was to introduce teaching and learning strategies and processes that were more relevant to underrepresented youth populations than those engaged in their typical high school context to offer opportunities and increase their participation in the STEM study and career trajectory, something all too often out of mind and scope of these students. This presentation will report on three years of summer academy data (mixed methods) that includes both student and teacher learning outcomes. Analyses demonstrated that student gains in career decisions and knowledge of wider STEM career opportunities correlates with teacher gains in Problem-Based Learning and student-centered learning professional development shifts. Further, teacher dispositions, evidenced through data from interviews, observations, and multi-point surveys improved in a majority of the dimensions, including teaching inquiry-based approaches, integrating technology, and STEM career knowledge and awareness. Finally, we will discuss the larger implications of extending this work to positively impact similar populations elsewhere of isolated, under-resourced and under-exposed youth with these proven strategies.

Saturday Live Stream Session 3: Room B

Session Topic: Interdisciplinary Topics on Education

Session Chair: Amanda Mueller

59529   15:25-15:50

Global Citizenship and Cosmopolitanism Education: Definitions, Values, Benefits and Challenges

Yumi Saito, University of Hawai'i at Manoa, United States

There has been growing interest among teachers in Global Citizenship Education (GCE) after the launch of the Global Education First Initiative by the UN in 2012. GCE was included in the UN's Sustainable Development Goals; many countries have already begun incorporating aspects of GCE into their curricula and are making efforts to advance peace education, human rights education, and education for sustainable development. This paper focused on defining and understanding the definition of Global Citizenship (GC). By a comparative method of analyzing definitions of GCE in a wide variety of publications, including those by UNESCO, Oxley & Morris (2013) and Rizvi & Beech (2017), I investigate GC's origin and historical background, focusing on the concept of cosmopolitanism. I analyze the critiques of GC and why it is important for schools to promote GCE. Through this research, I hope to enhance GCE implementation in schools.

59533   15:50-16:15

Integrating Education for Sustainable Development (ESD) into Online Language Teaching: Three Arrow Model

Mika Tamura, Kyushu University, Japan
Pablo Riveros, Tsunagaru Edutech, Japan
Jin Tanala, Kyushu University, Japan

The purpose of this study is to examine the effectiveness of integrating Education for Sustainable Development (ESD) into online Japanese language teaching at a university in Japan. The online Japanese language course was designed by three researchers, digital learning expert, course coordinator, discussion facilitator, collaborating at combining three different learning designs: Agile Digital Learning, Content and Language Integrated Learning (CLIL), and ESD. The course is content-focused; students are encouraged to think and learn in Japanese language as students explored 9 topics among 17 Sustainable Development Goals (SDGs) in one semester. Through peer-to-peer learning activities such as discussions, as well as peer reading and responses, students also develop integrated Japanese language abilities. The participants were nine international students who come from different science fields and countries and are intermediate and advanced Japanese learners. The findings from the end-of-course questionnaire results indicated the students held a very positive view of implementing the new form of instruction integrating ESD into their Japanese language learning: All students were very satisfied with the course's content and found their CLIL experience more meaningful than traditional class and thought very useful for them. However, some students' comments suggested their difficulties in participating in online discussion and there needs to be the application of scaffolding techniques to help the students at lower-level students. This study discusses the necessary changes in the curriculum of this Japanese language course using digital teaching tools to enhance the students' learning by analyzing the students' perspectives from their experience of taking this course.

59039   16:15-16:40

Correlation of STEM Interest and Career Intent in Underserved and Underrepresented High School Students

Nahid Nariman, Transformative Inquiry Design for Effective Schools and Systems (TIDES), United States
Jaymee Nanasi Davis, University of Hawaii, United States

Understanding high school students' perceptions and dispositions toward STEM, and the role science and math self-efficacy play in establishing STEM career aspirations is imperative to preparing the STEM workforce of the future. Project STEMulate is an industry-aligned technology-rich Problem-Based Learning (PBL) model. The goal of this NSF ITEST grant-funded study (2018-2020) was to improve students' attitudes towards STEM. Project STEMulate focuses on Upward Bound students in Hawai'i and was implemented at three sites: University of Hawai`i (UH) Maui College, UH Hilo, and Windward Community College on Oahu. The participants voluntarily selected to participate in this program. The current study reviews year 2 data collected on the impact of Project STEMulate on low-income and underrepresented and/or native Hawaiian student's STEM career interest, and their science and mathematics self-efficacy. Students' reactions to the STEM learning experience was extremely positive. 80% of students expressed a desire to pursue a career in STEM at the post test. High school students who listed their plan to pursue a career in STEM also showed a higher self-efficacy and motivation. Analysis of the results demonstrates this program was effective in empowering students with insights into careers, enhancing knowledge that would serve them in pursuit of a career in STEM. In addition, the project fostered a can-do attitude and increased students' science self-efficacy.

Saturday Live Stream Session 4: Room B
Session Topic: Design, Implementation & Assessment of Innovative Technologies in Education
Session Chair: Michael Menchaca

59028   16:50-17:15
At the Intersection of Technology and Teaching: The Critical Role of Educators in Implementing Technology Solutions
Rachel Van Campenhout, Acrobatiq by VitalSource, United States
Murray Kimball, Acrobatiq by VitalSource, United States

Educators are critical for the successful implementation of any technology. Acrobatiq by VitalSource can use data to demonstrate the dramatic impact instructors—and their course policies—can have on courseware engagement. Acrobatiq courseware incorporates learning content, formative practice, homework assignments, adaptive practice, and summative assessments into a single learning environment for students, with additional data dashboards for instructors. Previous research has shown that the Learn by Doing approach, central to the courseware, has a six-times effect size on learning than reading alone, so engaging with the formative practice is critical to student success. A statewide system of colleges used Acrobatiq's Probability and Statistics courseware in a grant-funded initiative. The instructors were all provided extensive training on the courseware features, instructor dashboards, and pacing suggestions before the term began, however, each instructor was able to dictate how they incorporated the courseware into their teaching practice and course grades. Acrobatiq analyzed the courseware data using a visualization tool called Engagement Graphs and found a surprising level of variability between instructors. These findings demonstrate the impact instructors and their policies have on the successful implementation of the courseware. Because engagement is a vital component for the learning benefit of the courseware learning environment, Acrobatiq wishes to share these findings in an interactive format and utilize a data-driven workshop session to ideate with educators on teaching practices and product features which could fully leverage the capabilities of courseware. In this intersection of learning science-based technology and teaching practice is immense potential to increase student success.

59038   17:15-17:40
K-12 Strategies for Diverse Students in Online Learning Environments: Technology Integration Methods During COVID-19 Pandemic
Esther Ntuli, Idaho State University, United States
Shu-Yuan Lin, Idaho State University, United States

Before the COVID-19 pandemic, most K-12 public schools did not have a curriculum designed to teach students fully online. Although many teachers have used technology in the classrooms with students, they lacked online instructional design skills to transition their in-person classroom instruction into fully online learning environments. This presentation reports the results from a needs assessment survey sent to teachers in school districts in southeast Idaho during the COVID-19 pandemic. The survey instrument included both open and closed-ended questions. Based on the survey result (n = 45), the presentation offers research-based technology strategies and methods that K-12 teachers could use in online teaching environments during and after the pandemic. Findings presented also question some theories of learning that have remained stagnant and continue to be the cornerstone that informs traditional teacher education programs while the society and the human brain continues to evolve in the face of new technology. Such theories need to be revisited and new theories advanced that help explain how people learn in the digital age and during a crisis. Recommendations for curriculum revisions required in teacher training and professional development programs that offer technology courses will be discussed.

58827   17:40-18:05
Developing an Integrated Quantitative Assessment Model for Continuous Improvement of Engineering Education
Mohamed Askar, Southern Utah University, United States
Jared Baker, Southern Utah University, United States

The assessment of the continuous improvement of engineering education is a vital factor that relates to the long-term strategic development of engineering education's infrastructure. The most common technique of evaluating the performance of engineering education is through a range of qualitative indicators, sometimes as a part of department assessment. Common qualitative assessments embrace contribution measurements of students and faculty, such as interviews, surveys, course evaluation, peer evaluation, and faculty annual activity reports. The main objective of this paper is to establish an Integrated Quantitative Assessment Model (IQAM) for the continuous improvement of engineering education. The model creates a statistical and mathematical reference that would optimize the processes of the evaluation and help students to receive the high standards of knowledge they need to meet the demands of the international employment market. The IQAM framework considered some performance indicators to measure the eight ABET General Criteria for Engineering Education Programs; Students, Program Educational Objectives, Student Learning Outcomes, Continuous Improvement, Curriculum, Faculty, Facilities, and Institutional Support. The model was tested in the Engineering and Technology Department at the institution. The individual items within the model were examined to identify the correlations of the Engineering education continuous improvement with the performance indicators. As a result of the model design, a matrix of eight dimensions was obtained and implemented in the engineering education programs. Finally, the focus of these assessment methods is on the measurement, development, and improvement of student learning outcomes aligned with ABET Criteria for Accrediting Engineering Programs, 2020.

59480   18:05-18:30
Gap Design as a New Tool for Learning and Assessment
Krishnendu Sarkar, NSHM Knowledge Campus, India

The attempt was to stimulate positive provocation in learners to think and create alternative approaches to effectively deal with real-life problems. The case involved learners of the Master in Hospital Administration program who all agreed to get assessed under a higher level of Bloom's Taxonomy like never before on their end semester project. The research problem was to qualitatively analyze the gaps in the solution approaches of students and faculty and between the existing curriculum and contemporary industry practices. Based on the extensive literature studies on the framework method for analysis in the context of multi-disciplinary healthcare management research a new matrix for gap analysis was done that yielded new results and findings related to the research problem. Our gap design method evolved as an effective pedagogical tool positioned for Bloom's Level 4 to 6 that ascertained learner motivation for interdisciplinary exploration, peer engagements, new ideas, and co-creation. The process involved a combination of a hackathon and flipped classroom techniques involving 40 students in 9 groups. Each group was assigned a faculty mentor and a unique industry problem based on industry surveys and problem validation. The final assessment of group projects was as per a defined rubric on gap elucidation and correction. A prototype gap design and correction model called 'assessmend' got developed and deployed over the internet to invite further feedback and continuous improvements in the claimed novel gap design pedagogy for its wider acceptance.

18:40-19:30 | Hawaii Standard Time (UTC-10)
Saturday Live Stream Session 4: Room B
Workshop Presentation
Session Chair: Michael Menchaca

59048   18:40-19:30
Engaging Participants Online and In-Person
Gena Rhoades, US Department of State, English Language Programs, United States
Lucienne Aarsen, University of Southern California, United States

Dornyei (2018) defines student engagement as motivation and active learning. He also stresses students' need to maintain that engagement in several contexts, such as the school, course, task, instructor, and peers. The activities in this interactive workshop focus on websites and apps that have been successful in engaging students through academic and non-academic courses, including those taught online. Because students are more energized by activities that allow them to use technology to create and learn, the workshop leaders have adapted their teaching to include a variety of activities that encourage the use of technology both in and outside of the classroom. In this workshop, participants will learn how to use engaging educational games and applications, such as Quizizz and Goosechase. Many activities include motivating conversation groups, and inspiring cooperative teams that work together on a variety of sites that are assigned by the instructor or proposed by the students. Links to all sites will be provided to participants.

Virtual Presentations (Pre-Recorded)

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

IICEHawaii Virtual Presentations (Pre-Recorded)

Adult, Lifelong & Distance Learning

59215

Massive Open Online Courses (MOOCs) and Open Educational Resources (OER): An Overview of Non-Degree, Low Cost Lifelong Education Opportunities

Kristin Palmer, University of Virginia, United States

This presentation will be an overview of resources for how to continuously learn with online resources for minimal cost. Open Educational Resources (OER) such as free online classes, digital textbooks, and YouTube channels will be reviewed. Massive Open Online Courses (MOOCs), Class Central and initiatives around COVID-19 and free classes will be reviewed. Subscription services like LinkedIn Learning, Udacity, Future Learn, and Udemy will be reviewed. Large businesses with free training resources such as Google, IBM, and Salesforce will be reviewed. Career pathways such as IT helpdesk, cloud administrator, and digital marketing manager will be discussed with how to take online courses for minimal cost to get official certificates to prepare you for future job opportunities.

Challenging & Preserving: Culture, Inter/Multiculturalism & Language

58580

How Do Middle Eastern Students See the World? A Study of Relational Versus Categorical Encoding

Maura Pilotti, Prince Mohammad Bin Fahd University, Saudi Arabia
Eman Abdulhadi, Prince Mohammad Bin Fahd University, Saudi Arabia
Tahani Algouhi, Prince Mohammad Bin Fahd University, Saudi Arabia

Evidence exists that the human mind can process information from the surrounding world (Kagan, Moss, & Sigel, 1963) in two distinct ways: individualists (Westerners) rely on categorical processing, using similarities to group objects, people, and events, whereas collectivists (East Asians) process objects, people, and events by emphasizing functional relationships (Nisbett & Miyamoto, 2005). However, the encoding preferences of bicultural/bilingual individuals of Middle Eastern descent are unknown. In this study, Arabic-English bilingual students from Saudi Arabia (SA) were presented with word triplets. Their task was to select two items that "would go together". Some triplets (e.g., shampoo, conditioner, hair) contained items that could be grouped by considering either shared features (categorical processing; e.g., shampoo and conditioner) or relationships (functional processing; e.g., shampoo and hair, or conditioner and hair). Each item appeared in both English and Arabic to ensure that linguistic cues would not promote one culture over the other. Participants' culture was assessed through the orientation scale of Triandis and Gelfland (1998). In this study, participants' preference for categorical processing coexisted with their mixed cultural orientation which included both collectivistic and individualistic dispositions. Implications for academic instruction are considered.

Curriculum Design & Development

59437

Emergency Remote Teaching a New Curriculum During a Pandemic

Sweta Patnaik, CPUT, South Africa

The COVID-19 outbreaks worldwide led the academic institutions to entirely cancel face-to-face teaching including laboratories and other learning experiences as a step against the risk posed by the virus. Alternatively, various measures were initiated by the higher education providers to implement social isolation, and online or remote teaching was adopted with rapid curriculum transformation. Online delivery is more convenient, as it can provide vibrant and dynamic teaching and learning environment. However, due to limited time constraints, the curriculum transformation was anticipated to occur rapidly without sufficient preparation. Therefore, in this paper, the concept of emergency remote teaching (ERT) including its application and evaluation is thoroughly discussed. The application of the ERT at the University of Technology in South Africa has been considered. This study draws on the CIPP evaluation model and constructivism theory to assess the effectiveness of the adopted model, and qualitative data were collected online taking samples of students from a particular curriculum which was a new qualification that started this year. Besides, questionnaire responses via google forms, experiences, beliefs, and challenges encountered by the educator and students on the emergency remote teaching were used and analyzed. In addition, students' attendance and module nature were considered to evaluate the students' participation in the online classes. The collected information was analyzed and based on the outcomes, recommendations were given to serve as an input for future strategies and to improve the performance of teaching-learning activities during similar circumstances.

59351

Computer Science Integration With Traditional Science Disciplines

Michael Guarraia, National Aeronautics and Space Administration, United States

An alarming trend was identified at the presenter's school (grades 9-12). Few female students and students of color were enrolled in "accelerated" 9th and 10th-grade compulsory courses. Even worse, those students dropped out of "accelerated" courses at much higher rates than their white male counterparts, such that female students and students of color were conspicuously absent from more challenging, upper-level science electives. This was especially true for computer science electives. The department concluded that the leveling of 9th-grade science (physics) was partly to blame, as well as a lack of exposure to computer science and engineering in early high school. The department therefore undertook an effort to rewrite the compulsory science curriculum to eliminate leveling in 9th-grade, and incorporate computer science instruction in both 9th and 10th grades. This has led to significant increases in the enrollment of female students and students of color in "accelerated" courses and computer science electives. This workshop will focus primarily on the pragmatic implementation of computer science into other disciplines utilizing a free, open-source program called p5.js. The program was developed by two graduate students at the MIT Media Lab to promote software literacy. The presenter uses this in the 9th-grade science to integrate computer science with physics. Students in this workshop will work through a series of deliberate exercises to gain familiarity with this program. The end goal is to become proficient enough to plant the seed for lessons that could integrate computer science with their discipline.

IICEHawaii Virtual Presentations (Pre-Recorded)

Curriculum Design & Development (cont'd)

59345

English for Graduation: The Development of an Innovative Japanese University Program Connecting ESP Courses With Graduation Seminar Topics
Darlene Yamauchi, Bunkyo Gakuin University, Japan
Wendy Gough, Bunkyo Gakuin University, Japan
Kaori Fairbanks, Bunkyo Gakuin University, Japan

The increasing importance of English as a global language as well as the recent attention to the merits of the integration of language learning with knowledge/content construction has led to the necessity for the inclusion of courses satisfying these requirements. This presentation will discuss the development of an English for Specific Purposes (ESP) program that enables students to study content related to their graduation seminar subjects in English. The presenters received a university grant to research and develop new ESP courses on topics identified by seminar professors as important to provide students with the critical thinking as well as the language skills necessary to discuss their graduation thesis topics in English. In this presentation the process of constructing this new program including a needs analysis with cooperation from the seminar professors to determine specific topics for the new content English courses, will be elaborated upon. Important caveats will be outlined for example how to overcome perceived institutional barriers often occuring with the implementation of new programs; in this case the necessity to make the courses accessible to all third and fourth year students of various English language proficiency. The logistics involved in the successful resolution of this situation will be discussed; specifically the steps taken to amend the current stringent institutional policy of a TOEIC requirement in order to create a more inclusive ESP program. This interactive presentation will detail the development of the new ESP courses and the plans to pilot the courses in the 2021 academic school year.

58995
A Quantitative Analysis of Vocabulary Taught in Japanese EFL Textbooks
Shusaku Nakayama, Meiji Gakuin University, Japan

This research examines vocabulary appearing in government-approved Japanese EFL senior high school textbooks by addressing the two research questions: (1) do Japanese EFL textbooks provide words that learners are more likely to meet in the real world? and (2) if Japanese students are able to master all of the vocabulary words taught in Japanese EFL textbooks, is that enough for them to be able to read authentic texts? To address these research questions, vocabulary in textbooks and the New General Service List (NGSL), which consists of 2,801 high-frequency words in general English, are compared to each other. Results show that textbooks are largely made up of the words in the NGSL at a level that is statistically significant; however, those that are covered by textbooks are only part of the NGSL. Overall, research findings indicate that indeed vocabulary items textbooks provide may be what learners frequently come across in the real world, but they cannot suffice in order for learners to read English texts intended for native speakers. Therefore, language teachers should ask students to read English texts extensively or watch English movies to widen their vocabulary size.

Design, Implementation & Assessment of Innovative Technologies in Education

58949
Video Annotation Tools to Support Peer Review Teaching Skills Improvement for Pre-service Teachers
Shin Kurata, Nagasaki University, Japan
Takashi Fujiki, Nagasaki University, Japan
Masao Murota, Tokyo Institute of Technology, Japan

This study developed a peer review mobile system to support pre-service teaching skills improvement. The review comparison function was developed that supported individual review comparisons and comparisons with others by superimposing the reviews as markers on the video image. Based on the position and timing of the reviews, it was able to distinguish between individual self-reviews and peer reviews during reflection. The teaching skills organizing function that organized teaching skills from three perspectives was also developed that allowed for the dragging and dropping of markers during reflection to any position on the video image to indicate the skills that the pre-service teachers needed to improve. The practice of peer review and self-reflection were then verified with 16 university students who had had no student teaching experiences in elementary school, after which a Likert scale and free description survey was conducted. Using a mixed-method analysis, it was found that the review comparison function was able to support individual review comparisons and comparisons with others using sequential and overall comparisons, and the teaching skills organizing function was able to organize the teaching skills the pre-service teachers needed to improve by identifying the viewpoints and categorizing the teaching skills. Based on the review comments, it was concluded that using this system could improve pre-service teaching skills and could be further expanded.

IICEHawaii Virtual Presentations (Pre-Recorded)

Design, Implementation & Assessment of Innovative Technologies in Education (cont'd)

58940
Developing and Evaluating the e-learning Material for Speaking Practice With the Latest AI Technology
Makoto Shishido, Tokyo Denki University, Japan

There have been remarkable advancements in information and communication technology and artificial intelligence lately. Many e-learning materials with ICT and AI have become available in the market. However, none of them has proved whether they are effective in improving speaking skills in real ESL/EFL classrooms. In my previous studies, it was suggested that speaking practice with speech recognition and AI scorning system was most effective since the students can practice speaking anytime, anywhere, without a partner. Furthermore, it was reported that the psychological anxiety of learners could be alleviated, eliminating the resistance to speaking English, without feeling embarrassed even if they made mistakes, and they were able to repeat practicing many times. I have recently developed an e-learning material, which makes the best use of AI technology. Utilizing the most advanced AI technology, I introduce such learning activities as shadowing, role-playing conversations, and speech delivery practices with automatic evaluation and scoring through AI technology. I would also like to report the result of comparisons between pre-test and post-test scores of TOEIC and OPIc to evaluate the effectiveness of speaking practices and the improvement of oral skills with this system. Finally, based on the students' questionnaire, I would examine the opinions on learning English with AI. As a possibility of further development of the e-learning system using AI technology, the improvement of accuracy of speech recognition of English spoken by non-native speakers, evolution of AI, possibility of practicing free conversations instead of just repeating set phrases would be expected.

59216
The African Scholarship Cohort (ASC): A Robust Online Learning Community Reaching All African Nations and Providing Tens of Thousands
Kristin Palmer, University of Virginia, United States

The African Scholarship Cohort (ASC) is a partnership between the University of Virginia (UVA) and Distance Education of Africa (DEAfrica). The partnership started in 2015 and leverages massive open online courses (MOOCs) hosted on the Coursera platform. The ASC has provided dozens of courses and tens of thousands of scholarships to learners in Africa. There have been participants in these courses from all 54 nations in Africa. This presentation will review the history of the program and the results. This program leverages the social media platform Whats App to supplement online courses with a robust, local network of mentors and learners. Best practices on designing content to be mobile first, leveraging mentors and regional contacts to build community and celebrating accomplishments with graduation ceremonies and gatherings will be reviewed.

59360
Development and Integration of Freely Available Technology into Online STEM Courses to Create a Proctored Environment During Exams
Charles A Smith, Our Lady of the Lake University, United States

The current coronavirus pandemic has left many universities and their instructors in a sudden requirement of online education. For small private universities this creates an even more precarious situation as funds for online proctors or the purchase of software for online assessment monitoring is frequently insufficient. In addition, online assessments for STEM courses are often similar to the homework, notes, or textbook making a proctored environment in these courses a necessity. This virtual presentation presents the experiences of a Chemistry professor who has implemented an online instructional methodology that utilizes freely available technology allowing verification and real-time proctoring of online assessments. The presenter has observed a dramatically reduced degree of academic dishonesty in his fully online General and advanced Analytical Chemistry courses over a two semester period. The developed online proctoring methodology incorporates the direct use of students' smartphones and devices during online assessments. Instructor prepared videos that visually illustrate an "online assessment rubric" and how students may meet the rubric by fully showing their "workspace" when taking an online assessment appear to play a major role in the successful implementation of this methodology with an objective that includes the prevention of academic dishonesty. In this presentation advantages of the flipped classroom format, daily proctored quizzes, use of document camera, multiple screens, and breakout sessions will also be shared. Evidence of academic dishonesty, its prevention, along with mistakes and best practices in creating a viable proctored academic environment when using Webex, Teams, and Blackboard will be shared in this presentation.

59335
Effective e-learning for a Global Workforce: Designing with Cultural Competency
Byron Pulu, University of Hawai'i at Manoa, United States
Michael Menchaca, University of Hawai'i at Manoa, United States

Digital transformation has introduced multinational corporations to innovative technologies that provide accessibility to a global workforce. One area of business that is influenced by this transformation is digital learning. Multinational corporations are designing e-learning for a global workforce, yet little is known about how e-learnings are designed or its effectiveness. Research has shown that the success of e-learning for a global audience requires cultural competence during the design phase. Research has also shown that multinational corporations commonly use the ADDIE design model when developing training. This research aims to understand if multinational corporations using the ADDIE design model considers cultural competencies during the design process and how effective those e-learnings are to a global workforce. An online survey will be created and sent via LinkedIn to Learning and Development professionals and employees working for a multinational corporation. The survey will identify which cultural competencies are considered during the design phase, which cultural competencies should be considered, how training effectiveness is measured, and the effectiveness of e-learnings created for a global workforce. The survey results will determine how multinational corporations create e-learning for a global audience and if there is a correlation between cultural competency during the e-learning design phase and training effectiveness. Furthermore, results will inform Learning and Development professionals which cultural competencies to consider during e-learning design and the effectiveness of e-learning created for a global audience.

IICEHawaii Virtual Presentations (Pre-Recorded)

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

59595
Construct Validity and Reliability Testing the Concept of Disaster Resistant Education in Inclusive Primary Schools

Nurul Hidayati Rofiah, Hiroshima University, Japan
Norimune Kawai, Hiroshima University, Japan
Elli Nur Hayati, Ahmad Dahlan University, Indonesia

This study aims to test the validity and reliability of construct variables and indicators of disaster mitigation education models in inclusive primary schools, to determine the contribution of aspects and indicators in measuring variables, and to confirm the hypothesized model, namely the suitability of the model with the data using confirmatory factor analysis. This study's population was all teachers and principals in inclusive elementary schools with a sample size of 113 people. Samples were taken using non-probability sampling techniques carried out by convenience sampling. Data analysis was performed using the Linear Structural Model (LISREL). The results of the analysis show that the aspects of the identification of children with special needs, accessibility, meaningful participation, non-discrimination, strategies, and methods of supporting children with special needs, collaboration, and networking can reflect positive, valid, and significant variables which are supported by the behavioral indicators of each aspect. The theoretical model of disaster-resistant education variables in inclusive elementary schools is following empirical data. Most dominantly reflects the disaster mitigation education model in inclusive primary schools is identifying children with special needs, and the weakest aspect is collaboration and networking.

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

58897
Roma Students and Inclusive Education: The Design of Democratic Models for Intercultural Family Participation

Silvia Abad-Merino, University of Córdoba, Spain

The data provided by official organizations and the international scientific community indicate that Roma students face difficulties in the current educational system, including school segregation, student homogeneous grouping models, stereotypes and discrimination, failure, and early school leaving. The specialized scientific literature points to the participation of Roma families in the educational system as a key factor in improving the academic success of Roma students. Furthermore, the Spanish educational legislation includes the participation of families in School. However, despite the increasing cultural diversity of today's society, the educational system has not defined new models of intercultural participation, sensitive to the cultural peculiarities of ethnic minorities. This review examines the role of educational policies in the constitution of new spaces for democratic participation and new models of democratic leadership that guarantee the inclusion of Roma students and their families in all educational areas and school spaces. The criteria used in selecting articles with key theoretical and empirical contributions were the number of times an article was cited and the relevance of the topic including current educational policies in the Spanish context. The results will enrich the debate on the design of strategic plans for intercultural family participation that are sensitive to the perspectives of ethnic minorities that coexist in today's global society.

59377
A Study of Student's Learning Outcomes of the Educational Program Integrating Fashion and SDGs by the U.N. Affiliated Student-driven Organization

Shinichi Yamazaki, J.F. Oberlin University, Japan

This research aims to define the learning outcomes of the educational program, "Cherish, Enjoy, and Develop oneself", in higher education. This educational program focuses on considering the fashion as anchored on the influence of psychological processes on wearers (Adam and Galinsky, 2012), and Sustainable Development Goals (SDGs) to increase self-efficacy and to learn SDGs itself. That is developed by the college student-driven organization, Action by Students to Promote Innovation and Reform through Education (ASPIRE), part of the United Nations Academic Impact projects. At ASPIRE, all of the educational activities are extracurricular, and planned, organized and managed based on student's autonomy and curiosity. Sustainable Development Goals (SGDs) is an agenda for 193 countries all over the world by the United Nations in 2015. SDGs consist of 17 goals with 169 sub-targets to achieve by 2030. The U.N. also commits changing path of fashion by launching the UN Alliance for Sustainable Fashion in 2019 because of reducing negative social and environmental impacts of fashion business and industries. On the other hand, the Cabinet Office, Government of Japan, warns that Japanese society faces less-self efficacy and a high rate of committee suicide especially for the younger generation (Cabinet Office, 2014). This study applies qualitative and quantitative approaches in a semi-structured interview and questionnaire survey to students who have the experience to participate in the educational program, "Cherish, Enjoy, and Develop oneself" to measure their learning outcomes.

IICEHawaii Virtual Presentations (Pre-Recorded)

Educational Policy, Leadership, Management & Administration

59598

Expanding Role of University Department Secretaries: Potential Middle Managers in the Making
Gregory Ching, Fu Jen Catholic University, Taiwan
Hsiu Hui Chang, Fu Jen Catholic University, Taiwan

In Taiwan, the plummeting birthrate has further driven the need for drastic changes within universities. Currently, university enrollments are at an all-time low, while also suffering from an increasing number of dropouts. In effect, many graduate programs are rethinking and realigning their program priorities. These strategic changes have actually opened up opportunities in harnessing the untapped potentials of university department secretaries. Within organizational behavior theories, employees' organizational citizenship behavior is highly affected by their role definition. To better understand these issues, the current presentation shall summarize the findings with regards to the expanding role of university department secretaries in Taiwan. A total of 20 university department secretaries were strategically selected and interviewed. Semi-structured interviews included the depth and scope of their responsibilities, together with the insights into their contribution and potential role within the organization. Interview data were transcribed and repeating themes organized and categorized. Findings show that majority of the secretaries have been connected with their programs for more than 10 years and has already surpassed several management terms. More important, almost half of the interviewed secretaries are alumni of the university and are graduate degree holders. Specific themes generated are career developmental plan, training focus on specific career tracks, and increased opportunities for career growth. Lastly, the role of secretaries can also serves as a buffering effect between the faculty and students. It is hoped that by expanding the role of department secretaries, increased in organizational citizenship behaviors can spill over to the student population and promotes retention.

58060

School Management Functions and Students' Academic Performance Nexus: An Empirical Evidence From Public Senior High School in Ashanti Region of Ghana
Blessing Dwumah Manu, Jiangsu University, China
Feng Ying, Jiangsu University, China
Daniel Oduro, Ghana Institute of Management and Public Administration (GIMPA), Ghana

In every aspect of life, management has become a crosscutting tool and the axis of performance. There is a broad and ongoing discussion in our academic institutions about the impact of effective management on academic performance. This study, therefore, sought to analyze the effects of school management functions on the likelihood to enhance the academic performance of students in Public SHSs in Ghana. The study used Teacher Professional Development, monitoring, and evaluation, Provision of Infrastructure outcomes, Teachers Input, Student Input, P.T.A support and Parental Involvement as variables measuring school management functions. In this study, the descriptive research design was adopted and data of 480 respondents were collected through a questionnaire survey for analysis. With the application of logistic regression analysis as the main statistical tool, the study based on Wald test values, p-values and odds ratio values identified Teacher professional development, Monitoring and evaluation, Provision of infrastructure, Teachers input, Students effort, PTA support, and Parental involvement as school management functions that significantly contributes to the likelihood (probability) of enhancing students' academic performance. The study recommended that school management functions with the exception of democratic management should be intensified in various public SHSs so as to enhance students' academic performance.

Educational Research, Development & Publishing

57956

Resistant and Nonresistant Teachers' Identities
Hao Duong, Thai Nguyen University, Vietnam

In many educational materials, it is recognized that the broader social conditions in which teachers live and work, and personal and professional factors in life, experience, beliefs and practices. The teacher is inseparable from each other, and there are often tensions between these things that impact a greater or lesser degree of sense of self or the teacher's identity. If identity is a key factor affecting teachers' intentions, effectiveness, motivation, commitment, satisfaction and job performance, then investigate the positive and negative influences of the contexts in which these occur and the consequences for practice, is essential. Although notions of personal identity is much used in educational research and theory, critical engagement with individual teachers' cognitive and emotion has been relatively rare. An interest in raising and maintaining teaching standards, especially in the context of centralized reforms, is likely to destabilize long-term beliefs and practices. This paper addresses the issue of teacher identities in Vietnam context by studying together the nature of the relationships between social structures and individual institutions; between the notions of a social construction, and therefore, depending and always being redone, 'self', and a 'self' with dispositions, attitudes and behavioral responses which are durable and relatively stable; and between cognitive and emotional identities. Based on current literatures of research papers and findings which studying variations in teacher work and life and the impact of them to students. It finds that identity is neither intrinsically nor fragmented, as previous literature suggests. Instead, the teacher identity may be more, or less, stable and more or less fragmented at different times and in different ways according to a number of life, career and situation factors.

IICEHawaii Virtual Presentations (Pre-Recorded)

Foreign Languages Education & Applied Linguistics

59252

Enhancing Pragmatic Competence Through Pedagogical Intervention

Chia-Ning Jenny Liu, Defense Language Institute, United States

The development of pragmatic competence is essential for foreign language learners to be able to produce meaningful communications in the target language. Studies addressing the realization of speech acts by second- or foreign-language learners (Bardovi-Harlig, 2001;Bardovi-Harlig & Hartford, 1990; Olshtain & Blum-Kulka, 1985) have found that even advanced language learners still often face challenges in communicative contexts. Even with the calling for need in pragmatic instruction in the present theory and research reports, foreign language classrooms remain the focus on grammar-oriented instruction, and pragmatic development of language learners has been overlooked. Previous studies suggested that when pragmatics is not a planned subject in a second or foreign language classroom, the opportunities for developing pragmatic competence is quite limited (Kasper, 2000). This study investigated the effect of pedagogical intervention through cultural projects learning on Chinese learners' development of pragmatic competence. Findings suggest that through a systematic pedagogical intervention helps raising Chinese language learners' pragmatic awareness and development of learners' pragmatic competence.

59346

Action Research on Note-taking Instruction

Yoko Kusumoto, Tokyo University of Technology, Japan
James Broadbridge, Bunkyo Gakuin University, Japan

The importance of note-taking skills for English for academic purposes (EAP) students and teachers is growing due to a rapid increase of English-medium instruction (EMI) courses offered in English as a Foreign Language (EFL) contexts. Note-taking is a complex process that involves comprehending aural input, identifying important information, and recording information. All of which is undertaken under real-time constraints. This difficult task is amplified for those doing so in a foreign language and therefore the explicit teaching of the skills required to take notes should be beneficial to these learners in order to help them prepare to participate successfully in EMI courses. There is, therefore, a legitimate argument that students in EMI courses need to learn how to take notes and a clear need for pedagogic support for EAP and EMI teachers. Currently, however, few descriptions of instructional practices exist in the literature, and guidance from teacher training programs is lacking. This presentation reports findings from an action research study done in Japan. In the study, explicit note-taking instruction based on Siegel's (2018) four-step process was given to 30 Japanese university EAP learners who were preparing for EMI classes. The notes taken before and after the pedagogic intervention were collected and analyzed in terms of information units (IU). Analysis of the notes provided qualitative evidence of changes in amounts of IU recorded. The presentation describes the notetaking instruction, discusses research findings, and uses examples of student work to illustrate changes in note-taking behavior stimulated by the instruction.

59349

Unintended Positive Consequences of Remote Teaching for Language Learning: An Overview

Michael Barr, Kyoto University of Foreign Studies, Japan

The sudden transition to online learning by institutions around the world in 2020 came as a shock to the status quo of higher education. Instructors and administrations around the world scrambled to orient faculty and students to online learning platforms. Crash course training programs were implemented, with varying results. At Kyoto University of Foreign Studies, the platform of instruction was decided to be Microsoft teams, with training and support in that direction, taking advantage of extant institutional affiliations with the Microsoft Office platform. Available technological options had previously underutilized functionality, and 2020 provided an opportunity to explore their potential in depth. Although this paper in no way intends to minimize the myriad challenges faced by institutions around the world which had to make a sudden shift to online learning, the aim herein is to highlight advantages to online, remote, and virtual learning platforms for language learning. In addition to advantages experienced by educators and learners who become proficient in the use of educational technologies, there are benefits to administrators and institutions as well, both financial and organizational. By explaining and describing the unintended positive consequences of online learning, and by providing details and data, we hope to illuminate the path forward as we carry these skills into the future. The face of higher education has changed irrevocably, and in this new age of combining available technologies with a traditional lecture and classroom experience, university instruction will never be the same again.

59369

The Wand of Mnemosyne: Sparkles Created on Vocabulary Learning

Yung-huei Chen, National Chung Cheng University, Taiwan

Language learners are constantly looking for a magic wand to wipe off all the learning pains on memorizing vocabulary. Fortunately, the goddess of memory, Mnemosyne, came to the mortal world to rescue those who suffer from severe vocabulary retention difficulties. When the wand of Mnemosyne is waved, learners' burden on memorizing vocabulary may be relieved. Previous studies (Carney & Levin, 2008; Matsunaga, 2004) showed that mnemonics could be trained and practiced so that vocabulary items could be memorized for a longer time. The aim of the study is to examine the efficacy of mnemonic methods on EFL adult learners' vocabulary retention. More than one hundred learners with similar English proficiency participated. A total of two mnemonic devices, including method of loci and keyword method, were taught then implemented as integrated mnemonic learning strategies in the experiment. After the participants were trained, the experimental group was required to remember assigned vocabulary items. They were tested to recall all the vocabulary items immediately, and on one-month and four-month intervals. The control group went through the same assessment process as that of the experimental group; however, they were not taught on any mnemonic methods. Multivariate repeated measures ANOVA were used to analyze the data obtained from the immediate, onemonth, and four-month tests. The results have a statistical significance when integrated mnemonics were practiced. It could be concluded that mnemonics reduces forgetting over time for adult learners in this study.

IICEHawaii Virtual Presentations (Pre-Recorded)

Foreign Languages Education & Applied Linguistics (cont'd)

59371
Intelligibility of Korean-accented English: Effects of Listener's Familiarity
Bohyon Chung, Hanbat National University, South Korea
Hyun Kyung Miki Bong, Ritsumeikan University, Japan

The current research examines the Korean-accented English (KoE) intelligibility to give an account of the listener familiarity benefits (Interlanguage speech intelligibility benefit, Bent & Bradlow, 2003; Shared-L1 advantage, Harding, 2011). This study compares the intelligibility of KoE between four listener groups with different levels of the accent familiarity: two groups familiar with KoE (Korean-speaking learners of English, and native English speaking teachers residing in Korea over a decade), and other two groups less familiar with KoE (Japanese-speaking learners of English, and native English college students). A total of ninety-one participants listened to a recording in the KoE accent and completed a dictation test, filling in the blank in a sentence. Results indicated that KoE was the most intelligible to native English speaking college students, followed by native English teachers living in Korea and Korean college students. KoE was found to be the least intelligible to Japanese speaking learners of English. Being familiar with KoE was not shown to be a deciding factor because two of the less familiar groups — Japanese-speaking learners of English and native English college students — performed either the best or worst. Drawing on the experiment results, we argue that having greater familiarity with KoE does not necessarily facilitate nor impede the intelligibility.

Higher Education

59578
Factors Predicting Doctoral Students' Future Career Perspectives: An Initial Look into the Role of Academic Identities
Gregory Ching, Fu Jen Catholic University, Taiwan
Yueh-Luen Hu, National ChengChi University, Taiwan

Increased competition of universities in Taiwan has promoted the adaptation of neoliberal management practices within institutions. These changes have altered the career outlook of faculty from a more single focus into a multi-role perspective. This continuing role conflicts have created the misalignment of academic identity and blurring of work ideologies. Within the aspects of doctoral education, currently a decreasing trend in number of enrollments and graduation rates are seen. This is in part caused by the outgoing mobility of graduate students and the perceived difficulties in securing a job for post-graduate degree holders. As doctoral students are crucial to the future of Taiwan academia, understanding how their career perspectives are shape is of utmost importance. To analyzed the doctoral students' career inclination, a survey containing their perceived importance with regards to interactions with their mentor, classmates, course design, and together with their perceived self-efficacies are collected. A total of 94 doctoral students from the two comprehensive universities in Taiwan are surveyed. Regression results show that academic identity inclined towards research only career is highly dependent on doctoral students' coping facilitations, while teaching only career is best determined by their mentors' provision of career opportunities, and the teaching and management-oriented courses. More important, results show that a dual perspective academic identity is highly significant with the doctoral students' mentor provision of career opportunities. These findings suggest that doctoral students' future career are highly shaped by their experiences with their course undertaking and quality of interactions with their mentors.

59237
A Correlational Investigation into Sub-skills of Reading Comprehension: Evidence From Thai Reads
Thapanee Khemanuwong, King Mongkut's Institute of Technology Ladkrabang, Thailand
Ekkapon Phairot, Songkhla Rajabhat University, Thailand
Kho Siaw Hui, Universiti Sains Malaysia, Malaysia
Thanate Angsuwatanakul, Rangsit University, Thailand

A standardised test of English reading comprehension is typically well-constructed to permit a reliable classification of different achievers e.g., high, moderate and low. READS or Reading Evaluation and Decoding System is one of the tools used to trace the ESL Malaysian students' reading comprehension abilities. The test system of READS had been designed to show the abilities of students in reading comprehension with three sub-skills, namely, literal, reorganisation and inferential. The sub-skills have been proved to have correlation with each other. However READS also has a strength to illustrate students' abilities in each sub-skill with three levels of difficulty e.g., low, moderate, and high. The need to take a closer look at relationships in different levels of difficulty in each sub-skill is a missing gap the area of language assessment. With the functional availability in RAEDS, therefore, this study aims to investigate correlations of three levels of difficulty within each sub-skills. This research was conducted with 190 English-major undergraduate students at one public Thailand university in Bangkok. The main research instrument in this study is a test of READS with a cultural bias adaptation. The participants were asked to take and complete an online READS test in one hour. One of different sets of test had been assigned randomly to each participant. The Pearson correlation was the statistical technique in the SPSS program used to analyse the data. The results revealed that there were an insignificant correlation between the participants' scores in three different levels of difficulty in literal and reorganisation sub-skills. It was found that only correlations between the participants' scores across three levels of difficulty were statistically significant.

IICEHawaii Virtual Presentations (Pre-Recorded)

Higher Education (cont'd)

59358

The Efficacy of Life and Career Skills in the Workplace Preparedness of the Students of Engineering

Mekala Sethuraman, National Institute of Technology-Tiruchirappalli, India
C Harishree, National Institute of Technology-Tiruchirappalli, India
Geetha Radhakrishnan, National Institute of Technology-Tiruchirappalli, India

The astute transformation of employment opportunities in the innovative and digital era pursue employees with updated professional and self-determination skills set that are indispensable to enrich the productivity of the industrial outcomes in India. However, the insurmountable needs of the industries are unfulfilled due to the inadequate skills set of the engineering graduates constituted by the profound skills gap between the transforming industrial requirements and the outdated engineering curriculum. The 21st Century workplace aspires employees with adaptability, self-development attitude, rapid perceptive skills, etc., to achieve productive success in this competitive world. Despite the skills gap prevailing for years, there have been only a few studies conducted on the significance of Life and Career skills. To address this issue, the present study examines the perceptions of students and teachers on the significance and efficacy of Life and Career skills in the engineering curriculum. As a consequence, an online survey has been conducted among 1048 students of engineering and 34 teachers of English in the engineering institutes of Puducherry between July 2019 and August 2019. The data collected have been statistically investigated using descriptive and correlation analysis. The results exhibit the consensus of teachers and students on the paramount role of Life and Career skills in capacitating the students with flexibility, adaptability, initiative, self-direction, social, cross-cultural, productivity, accountability, leadership, and responsibility skills set. The findings imply the desideratum of integrating the Life and Career skills in the engineering curriculum for eventually preparing the students towards the 21st Century workplace.

59013

Isolated, Intimidated and Bullied on University Campus: The Students' Experience and Recommendations

Yulong Gu, Stockton University, United States
Amee Shah, Stockton University, United States

Background: Exclusionary behaviors, including offensive and hostile behaviors (such as bullying and harassment), are a common problem in universities worldwide. However, student perspectives regarding their experience with exclusion on campus, the cause and impact of such experience, as well as potential solutions are not well understood. Methods: We collected and analyzed quantitative and qualitative data in a campus-wide student survey at a U.S. predominantly white university to understand student perspectives. Results: Among 2511 survey respondents (response rate: 29%), almost one in five students (19%) experienced isolation, intimidation, or harassment in the recent 12 months. Students of color had more personal experience with exclusion than white students (26% among students of color and 15% among whites, $X2=37.8$, $p<0.01$). More LGBTQIA students experienced exclusion than those of mainstream gender identities (47% among LGBTQIA and 18% among male/female, $X2=21.4$, $p<0.01$). A range of bases for exclusionary behaviors was identified, including race, political views, physical characteristics, age, and socioeconomic status. Although very few students reported these incidents, they experienced to the campus authorities, such experience had a significant negative impact on the student's perception of their life on campus and of the campus climate. The student-suggested action areas included policy enforcement, campus governance, diversity recruitment, cultural competence training, multi-cultural activities, as well as continuous assessment and open dialogues. Conclusion: In a 2018 university student survey, we identified a high prevalence (19%) of exclusionary behaviors with some gender and racial differences, the causes and impact, as well as action areas to address the issue.

58969

Developing Master Courses in Higher Education Learning Environments

Jill Tussey, Buena Vista University, United States
Leslie Haas, Buena Vista University, United States

This presentation will focus on how to develop master courses in higher education. Master courses can help ensure that students are receiving the same information and having comparable experiences in a course regardless of the instructor. University leaders and professors can learn the steps associated with creating master courses. Information will also be shared about the additional benefits as well as challenges associated with developing and utilizing master courses. Course developers are tasked with creating common experiences for students while acknowledging varying levels of experience and background of instructors. Developed master courses require educators to go beyond using a common syllabus by engaging instructors through tiered supports in the areas of student engagement, motivation, and skill development. Additionally, master courses provide a structure for instruction regardless of the delivery method. As educators move into a new academic year where social distance and distance learning are at the forefront of many minds, educators need to be mindful of ways to ensure that courses are be designed and delivered in a common format regardless of physical location changes throughout the year. Example procedures and processes of how master courses have been created and utilized at a small, liberal arts university will be shared with attendees.

57898

The Need Analysis to Develop Social and Emotional Competency Program for University Students

Eunjung Kim, Pusan National University, South Korea

The purpose of this study was to suggest implications by conducting a needs analysis for developing social and emotional competency programs of university students. To this end, the data was gathered by university students in Busan and South Gyeongsang Province through 301 questionnaire and 10 focus group interview. For the need analysis through the questionnaire, first, t-test was verified statistically with the difference between the desired level and the current level. Second, Borich's needs were also derived using formulas. Third, the needs were presented using The Locus for Focus model. Fourth, these were aggregated to derive the top and second priority items. In addition, the focus group interview (FGI) was conducted twice for a total of 10 university students. As a result, we were able to obtain meaningful data by transcription of qualitative data based on students' experiences. Based on the survey and interview analysis, it was found that university students felt the most need for self-regulation and self-awareness competencies among the five sub-competencies of social and emotional competency: self-awareness, self-regulation, social-awareness, relationship regulation, and responsible decision-making. Implications and suggestions in further research were discussed.

IICEHawaii Virtual Presentations (Pre-Recorded)

Innovation & Technology

59221

Development and Validation of Questionnaire on Self-regulated Learning Strategies in Online Learning Environment
Gelyn Acar, De La Salle University Manila, Philippines
Maricar Prudente, De La Salle University Manila, Philippines

Covid-19 has resulted in a sudden shift in education settings, from face-to-face to online learning sessions. In view of this major change, it is necessary to study students' self-regulation strategies in an online environment to enable the teachers to develop online materials that will guide students to become successful in their learning. This study aimed to develop and validate a questionnaire on students' self-regulated strategies in an online learning setting. The instrument was named Questionnaire on Self-regulated Learning in an Online Learning Environment (QSROLE). QSROLE consists of 17 items that describe the measure of students' self-regulation strategies in a digital learning environment. A total of 226 students served as respondents. The students' responses were based on a 4-point scale ranging from 1 (Strongly Disagree) to 4 (Strongly Agree). Results from the exploratory factor analysis provided evidence for the four-factor self-regulated learning strategies with the KMO coefficient and Bartlett's Sphericity value of .905 and .000, respectively, and total variance of 58.207%. Further, internal reliability had an acceptable level based on the Cronbach's alpha coefficient of .840 for Factor 1 (Establishing Self-Study Strategies); .765 for Factor 2 (Managing Structured Learning Environment); .744 for Factor 3 (Exercising Time Management); and .612 for Factor 4 (Setting Online Learning Goals). Results indicate that QSROLE is an acceptable and valid measure of students' self-regulation in the online learning environment.

58973

Teaching and Learning in a Hybrid Environment
Leslie Haas, Buena Vista University, United States
Jill Tussey, Buena Vista University, United States

This poster session will explore the management, organization, and teaching strategies associated with synchronous and asynchronous course delivery in higher education. Presenters will provide information on how to best utilize a Learning Management System (LMS) in conjunction with video conferencing to provide hybrid instruction. Strategies for building faculty/student rapport, encouraging engagement, and scaffolding self-efficacy via LMS systems and video conferencing will be reviewed. Additionally, the pros and cons of this type of hybrid format for teaching and learning will be explored. Through this poster session, attendees will gain a better understanding of 1.)how to develop, manage, and organize hybrid courses for higher education; 2.) how to effectively teach and engage students using synchronous and asynchronous activities and strategies; and 3.) how to grow with and from the pros and cons of teaching and learning within a hybrid environment.

Interdisciplinary, Multidisciplinary & Transdisciplinary Education

59514

A Preliminary Investigation on Teacher's STEAM Teaching Competency
Jui-Mei Yang, National Tsing Hua University, Taiwan
Che-Yu Ku, National Tsing Hua University, Taiwan
Tzu-Hua Wang, National Tsing Hua University, Taiwan

Recently, an interdisciplinary approach integrating Science, Technology, Engineering, Art and Math (STEAM) teaching and learning was advocated. Such approach aims to cultivate students' abilities of cooperation, critical thinking, creativity and problem solving. National Tsing Hua University founded Tsing Hua STEAM school and proposed a four-phase STEAM teaching model, including discovering problems, define problems and solutions, proposing models and modeling the problem solutions, and transferring the problem solutions (DDMT model). The allied k-12 schools are applying the DDMT model for curriculum development and implementation. To guide the school teachers' curriculum preparation and instruction enactment, this study tried to investigate the STEAM teaching competency required for teachers. Based on literature review and the DDMT model, an initial framework were proposed. The first dimension is selecting STEAM issue to facilitate students' explorations into SEAM-related daily-life problems. The second and third dimensions were the implementation of the DDMT model and student-centered teaching strategies. The fourth dimension highlighted the appropriate use of instructional media and representations to support students' understandings and applications of science and math concepts. The fifth and sixth dimensions emphasized the cooperative dialogue and sharing community and the multiple assessment approach. Experts and in-service teachers are invited to review the framework. The results support the validity and reliability of our preliminary version of STEAM teaching competency framework.

IICEHawaii Virtual Presentations (Pre-Recorded)

International Education

59473

The Impact of the Art Educational System in China
Samantha Di Fazio, University of Windsor, Canada

This session will focus on the pedagogy of the effects of the 2018 Chinese Art education System and compares it to the Canadian Educational System. This session takes a look at how different factors influence the Role of Arts Education in Chinese Society. This session will explore some theoretical implications, of the education system within China. The first finding looks at the impact on the different level of standards. When it comes to the arts, China has a higher level of standards for the student enrolled in the arts. Since there is a higher number of students forcing their discipline on the arts. The students must be able to perfect a higher level of standard, at such a young age. The second finding looks at the impact of keeping the arts in tradition. It is understood that keeping tradition is an important role in society and many families strives to achieve this excellency. The third finding looks at the issue of family pressure. Many elders within the Chinese society understand the importance of the arts and how being involved in the arts can help to make a rounded student. By pressuring a child to go into the arts, the elders believe that they can help shape a child into becoming a well-educated person within society.

Language Development & Literacy

59387

Sounds and Sippy Cups: New Approaches to Pre-Literacy in Adaptive Game-Based Learning for Young Children
Nika Fabienke, Age of Learning, Inc., United States
Brandi Kenner, Choice-Filled Lives Network, United States
KP Thai, Age of Learning, Inc., United States
Anastasia Betts, Age of Learning, Inc., United States

Decades of research from interdisciplinary fields (e.g. developmental psychology/linguistics, cognitive psychology/neuroscience, educational research) have yielded tremendous insights into the process of learning to read (i.e., Gough & Tunmer, 1986; Scarborough, 2001; Ehri, 1996; Kilpatrick, 2015). Yet, only about one-third of four graders in the United States are reading with accuracy, understanding, and fluency (NCES, 2019). In international comparisons, 15-year-olds in the US rank 24th out of 72 participating countries in overall literacy (OECD, 2015). Seidenberg (2018) attributed this to the disconnection between the science of reading and educational practice. This paper discusses the design of a mastery-based adaptive learning system to develop mastery of early reading. Grounded in the science of reading and cognitive development research, My Reading Academy delivers explicit and systematic phonemic awareness and phonics instruction, paired with rich reading and language experiences. Driven by new understandings of receptive phonemic awareness capabilities in children as young as two (Kenner et al., 20176; Kuhl et al., 2005), meaningful phonemic awareness experiences were crafted specifically for young learners as a foundation for future reading success. Across decades of literature, phonemic awareness has emerged as the strongest predictor of later reading success in children both with (Bradley & Bryant, 1981, 1983; Metsala, 1999; Scarborough, 1989) and without (e.g. Anthony & Lonigan, 2004; Fox & Routh, 1975; Muter, Hulme, Snowling, & Taylor, 1997; Stanovich, Cunningham, & Cramer, 1984;Stanovich, 1986) learning disabilities. Translational research-to-practice applications like My Reading Academy has the potential to deliver impactful personalized reading instruction at scale.

59352

Rethinking Research: Bridging Theory and Practice in Adult Literacy
Rebecca Clark-Stallkamp, Virginia Tech, United States

Low literacy rates in the US are explained in research based on several factors: from literacy programs' inability to support educator and tutor professional development to shortcomings in program evaluation such as assessment and accountability measurement error (Comings & Soricone, 2007). Research also determines that low literacy rates are exacerbated by lack of funding assistance for literacy programs and associated high attrition rates of adults participating in programs. One of the prominent problems that emanates from the literature is a scarcity of 'know-how' or guidance to design effective instruction (Beder, 1999; Beder & Medina, 2001). Adult literacy research attempts to understand how adults with low literacy learn or essentially, "What works?" for adult literacy instruction. Yet, minimal research has examined how instruction is designed in order to facilitate learning. Instead, research holds to traditional research methods that can only identify component parts of what may contribute to adult literacy learning. Through the pragmatic lens of instructional design and technology (IDT) (Reeves, Harrington, & Oliver, 2005), this presentation will review existing research relative to component skills research and instructional interventions designed for adults with low literacy in Adult Basic Education (ABE) programs. Discussion will extend to leveraging use of the design research methods used in the field of IDT to address shortcomings of existing research. Last, this presentation will explain how a design-based research approach can assist in achieving a better theoretical understanding of instruction and its practical implementation in ABE learning environments in the US (Nelson, 2013).

IICEHawaii Virtual Presentations (Pre-Recorded)

Learning Experiences, Student Learning & Learner Diversity

59173

Pilot Study on Promoting Community in the Online Classroom with Books in Common

John Duplice, Sophia University, Japan

This presentation reports on a pilot study from a ten-week Japanese university academic skills class conducted in English and held online during COVID19. The study investigated whether using a book club format known as "books in common" for the class would help build community among students and if a more robust post-pilot study is warranted. Due to COVID19, many of the students were in their home countries unable to interact with the general school population. This presentation will discuss the findings of using three books on writing to connect students and provide community through live and on-demand written forum discussions. The class consisted of ten international students at CEFR C1 (advanced) English level and was originally organized to be a fourteen-week project-research class where students would conduct interviews and questionnaires on an inquiry research project to write and present on. The findings were mixed, but supported further investigation with a more robust study.

59166

Back to the Drawing Board: A Longitudinal Study of Fossilized Errors

Robert Long, Kyushu Institute of Technology, Japan
Hiroaki Watanabe, Kyushu Institute of Technology, Japan

The problem of fossilized errors has been a problematic issue with EFL researchers because that they indicate that traditional methods of instruction are not effective. This issue was, therefore, examined with university-level first-year Japanese EFL students to better understand the context in which they are occurring and their frequency over the course of an academic year. Data was collected from two corpora, the Monologic and Dialogic Corpus (MDC) 2019 has 20,368 words, and 42 subjects, and the second corpus MDC2020, which has 16,997 words and 29 participants. Errors in the 2019/2020 corpora were identified and then coded for frequency; results showed the following fossilized errors: articles deletions (92/94), prepositions (39/43) plurals (54/55), subject-verb agreement (85/46), and general wording (60/69). However, in looking at clauses with errors/100 words, there were 5.29 errors in the 2019 corpus, whereas in the 2020 corpus, there was a slight improvement of 3.35 errors/100 words, indicating that marginal progress was made. These results show many of these errors are interlingual and that students are unaware of their errors that they are making in their spontaneous speech. Alternative methods of instruction are thus needed in EFL education to highlight awareness and self-editing skills.

59354

The RESET Framework: Examining Critical Factors in Parent-Child Math Participation

Anastasia Betts, University at Buffalo, State University of New York, United States

Research has shown that parent-child engagement in math activities has a significant positive impact on children's mathematics achievement, and that the more parents interact with their children through mathematics, the more likely children are to experience higher levels of math achievement. Yet, studies also show that parents' mathematics engagement with their young children is largely limited or uninformed. As evidence mounts supporting the importance of kindergarten math-readiness and its role in the future success of students, it is critical that researchers study the ways in which the home numeracy environment (HNE) shapes a child's math knowledge in the early years, especially for children from under-resourced communities who are most at risk for school failure. The present study, through a digital survey and semi-structured interviews, used the RESET framework (Role, Expectations, Skills, Efficacy, Time) to examine the HNEs of 23 parents of four and five-year-old children. The RESET framework is a new tool that takes a critical look at the factors that most influence the math-activity participation of parents, and how these different factors may interact with one another to impact parent-child math activity. The results of this study may provide researchers with new tools and approaches for studying the HNE, leading to the creation of better parent-engagement programs, increases in parent-child math activity, and higher math achievement for children - especially for those children most at risk for lack of school-readiness.

59373

An Exploratory Study of Safe Space in the Arts-Integrated Classroom in India

Riya Kartha, Soka University of Japan, Japan

This study investigates the challenges to implementing the Arts-Integrated Learning approach into existing curricula in India, and the degree and extent to which students feel safe in expressing their beliefs, thoughts and opinions within the classroom. Focusing on English language classes in two schools affiliated to India's Central Board of Secondary Education, the study outlines the challenges that arise when high school students do not perceive their classroom as a safe space, i.e. a space from within which to volunteer their participation through free and authentic expression, while also tackling challenging topics (Holley and Steiner, 2005). Drawing on the experiences of students and teachers through qualitative methodology that includes classroom observations, interviews and descriptive statistics based on the Teaching With the Arts Survey (Oreck, 2006), the study employs an exploratory approach toward the concept of safe-spaces within the Indian high school classroom. This is an especially relevant area of study considering the Indian academic setting, where teacher-oriented practices tend to dominate instruction and delivery. Since this is an ongoing study, preliminary findings will be shared based on the data currently being gathered. Preliminary findings suggest multiple obstacles to student self-expression in the absence of a classroom safe space, involving both student self-image and teacher beliefs, as well as an overriding emphasis on the curriculum, which takes precedence over classroom discussions. In addition, the preliminary findings offer a window into the challenges faced by teachers and students when teaching and learning through online classes held during the ongoing COVID-19 pandemic.

IICEHawaii Virtual Presentations (Pre-Recorded)

Learning Experiences, Student Learning & Learner Diversity (cont'd)

59037
Online Learning and COVID-19 in Higher Education: A Case Study
Siti Norbaya Azizan, Sunway University, Malaysia
Angela Siew Hoong Lee, Sunway University, Malaysia
Glenda Crosling, Sunway University, Malaysia
Graeme Atherton, Sunway University, Malaysia
Benedict Valentine Arulanandam, Sunway University, Malaysia
Catherine Cheng Ean Lee, Sunway University, Malaysia

From the beginning of 2020, the outbreak of COVID-19 caused global universities to close campuses and initiate online learning. In this situation, studies of the online learning experiences in universities are important in improving practice. This case study of the online learning implementation in a university in Singapore provides such information. The study addresses the question of: "How do the external factors of Task-Technology Fit and Unified Theory of Acceptance and Use of Technology affect the behavioural intention of online learning". The study is based on sound Information Technology (IT) models of users and key IT issues and looks at the integration of two Information Systems (IS) models: Task-Technology Fit (TTF) and Unified Theory of Acceptance and Use of Technology (UTAUT). The respondents in the study are students of the key case university disciplines. The emerging findings provide recommendations derived from the students' experiences for effective online teaching practices. These apply to the Singaporean context, and importantly, provide insight for the design of an effective online learning ecosystem for the post-pandemic higher education society.

59521
We're in the Breakout Room. Now What? Perceptions and Processes of Virtual Teamwork Involving Japanese Undergraduate Students
Murod Ismailov, University of Tsukuba, Japan

In this presentation I will examine the virtual teamwork processes by focusing on the perceptions of undergraduate students when they transition, take action and build interpersonal relationships during an intensive learning project carried out at the time of COVID-19 pandemic. The participants (n=20) were Japanese undergraduate students from three universities enrolled in a synchronous online course in international organizations. The study builds on the three-tier model of team processes (Marks, Mathieu & Zaccaro, 2001) as its theoretical framework. The findings are in line with previous research suggesting that virtual teams are multitasking entities that transition through multiple processes simultaneously and consequentially to achieve team goals. I conclude with implications for online teaching and learning, and future research.

58495
Impact of Differentiated Classroom Instruction on Conceptual Understanding of Selected Physiology Topics Among Dentistry Students With Varied Learning Styles
Maria Theresa Gonzales, Centro Escolar University, Philippines

In Dental education, there is a great need for enhancing the learning achievements, specifically, identifying the conceptual understanding in Physiology. One way to enhance the conceptual understanding is to tailor-fit the learning activities to the students' learning styles through differentiated classroom instruction (DCI). This study will use the mixed experimental and descriptive quantitative method following the pre-post test design with control. The learning styles of the participants will be determined through the use of an adapted VARK questionnaire. A self-made Physiology Concept Test (PCT) will be used after it has been validated and checked for internal consistency to measure the conceptual understanding of the students on the Muscular and Sensory Physiology lessons. A pretest will be given to the participants after which they will undergo six weeks of DCI based on their determined learning styles, a post-test will be given after the intervention. A structured lesson plan highlighting the intended learning outcomes, the content, guide questions, instructional procedures, evaluations, and assignment will serve as the teacher's guide in the implementation of the DCI to the experimental group. The performance tasks/ learning activities will be assessed using rubrics specific for the expected output of the DCI. Pretest and posttest scores will be compared using a paired t-test to determine the impact of the DCI to the conceptual understanding of the participants.

58582
Outcome Predictions of Low-Performing Students: Illusion of Knowing or Lack of Confidence?
Runna Alghazo, Prince Mohammad Bin Fahd University, Saudi Arabia
Maura Pilotti, Prince Mohammad Bin Fahd University, Saudi Arabia
Halah Al Kuhayli, Prince Mohammad Bin Fahd University, Saudi Arabia
Huda Mulhem, Prince Mohammad Bin Fahd University, Saudi Arabia

Successful performance on a test or assignment relies on the overlap between the knowledge and skills that learners possess and the particular demands of the task. The road to successful performance, however, begins well before the actual task is executed. It stems from learners' ability to accurately predict their performance (metacognitive awareness) as well as their commitment to perform actions intended to close the gap (metacognitive control) if the discrepancy between current state and desired state is substantial. Prediction is all but simple. Through a field study, we asked whether low-performing students are truly unaware of not knowing their deficiencies, as the illusion-of-knowing (IoK) phenomenon implies. College students' ability to predict their final test performance was surveyed as a function of test experience (i.e., before and after the test), performance level, and self-efficacy. In this study, high performers' prospective and retrospective predictions were more accurate and confident than those of poor performers. As predicted by the IoK phenomenon, poor performers overestimated their grades. However, they were less confident in their predictions. They were also able to benefit from the experience of taking the test. In fact, their accuracy of prediction improved after the test. These findings, as well as the lower self-efficacy of poor performers, suggest that wishful thinking, rather than IoK, is the culprit. Namely, poor performers are students who are aware of their imperfect competence but have little confidence in their abilities.

IICEHawaii Virtual Presentations (Pre-Recorded)

Learning Experiences, Student Learning & Learner Diversity (cont'd)

58578
A Case for a Culturally Relevant Pedagogy: A Lesson from The Middle East
Maura Pilotti, Prince Mohammad Bin Fahd University, Saudi Arabia
Runna Al Ghazo, Prince Mohammad Bin Fahd University, Saudi Arabia
Muamar Salameh, Prince Mohammad Bin Fahd University, Saudi Arabia
Hissa Al Mubarak, Prince Mohammad Bin Fahd University, Saudi Arabia

In educational settings where a curriculum developed in the USA is taught on foreign soil, teaching is particularly challenging, especially if students' socio-cultural and religious traditions invoke a distinct paradigm of human relations, and their habits of information acquisition and communication emphasize reiteration. It has been proposed that active and meaningful learning, exemplified by culturally relevant pedagogy (CRP) can aid students by enhancing not only engagement but also academic performance through improved comprehension and retention of information. In a field study, the effects on academic performance of two different CRP applications were measured. Both entailed modes and contents of instruction that attend to the specific cultural characteristics of the learners. However, in the systematic application condition, emphasis on culturally relevant content extended to both instruction and assessment, whereas in the informal application condition, culturally relevant content was largely confined to instruction. Participants were students of a Saudi Arabian university with a USA curriculum. They were enrolled in either a history course (2 sections) or a critical thinking course (6 sections). Randomization determined the condition to which sections of each course were assigned. In this study, during the first half of the semester, midterm and assignment performance did not significantly differ. However, performance during the second half of the semester and attendance rates were higher for the systematic CRP condition. These findings suggest that emphasis on culturally relevant content encompassing both learning and assessment can be beneficial to academic performance but its fruits become tangible only with sustained exercise.

Mind, Brain & Psychology

59258
Exploring the Cognitive Mechanism of Lifelong Learning and the Influence of Emotion
Yurou Wang, University of Alabama, United States
Jihong Zhang, University of Iowa, United States
Halim Lee, University of Alabama, United States

Lifelong learning is essential in today's society of information explosion and technological transformation. Understanding how lifelong learning manifests cognitively can promote student success and enhance machine learning. This project will explore the relationships among three basic cognitive factors underlying lifelong learning: persistence, autonomy, and motivation. We will also examine the influence of emotion on lifelong learning. Studies to date have captured neither the multidimensionality of persistence nor the interactions among persistence, motivation and autonomy. They have also ignored the impact of emotion on lifelong learning, although emotion could alter the cognitive process of such learning. To address these knowledge gaps, this study will include an experiment and track participants' emotions using the Intelligent Micro-Facial Expression Recognition System. Five hundred college students will participate in the experiment. Ultimately, this study will disentangle the intricate cognitive mechanism of lifelong learning to facilitate students' lifelong learning ability by considering the influence of emotion. Through experimenting with 102 college students, the research results showed that (a) being given a choice and (b) the emotion of joy each contributed to learning persistence.

Nurturing Creativity & Innovation

59004
Student Voices as Nouveau Committee Work: Providing a Platform and Safe Community for the Realization of Inspired Student-led Projects
Brandon Bigelow, Tokyo International University, Japan
Alexis Pusina, Tokyo International University, Japan

Department committee work is a compulsory yet vital component of higher education institutions. A limitless amount of untapped potential exists within students, and committees can be established or adapted to support the interests of passionate, innovative students. When students receive trust, respect, and liberation to author ideas of personal importance into manifestation, they are enriched at a comprehensive level. The presenters will share the origins and initial successes and challenges of a committee that provides a safe and encouraging platform for diverse and talented students to critically produce meaningful content at an international university in Japan. After establishing a respectful and inclusive environment, the main roles of the committee members are to facilitate student-led projects, hold regular meetings, advise, and provide accountability for students to be empowered achievers beyond the classroom. In addition to the students' sincere commitment, mandatory criteria for the student-led projects include being: inclusive, ongoing, realistic, educational, and featured as part of the Student Voices committee community. The presenters will give examples of current student-led projects based on topics such as: social justice, environmental education, university clubs, and intercultural exchange. Workshop participants will learn about the need for a new style of committee focused on the development of skills of intercultural communication, SNS-content production, and student leadership. Further, participants will come away with strategies for how to frame their desired niche committee service to department heads. More than merely teachers, educators should be advocates for student voices.

IICEHawaii Virtual Presentations (Pre-Recorded)

Primary & Secondary Education

59328
Improving Grade 3 Students' Poetry Writing Skills Through Flipped Model of Instruction
Maria Christine M. Morada, De La Salle Santiago Zobel School, Philippines

The flipped model of instruction has been the focus of many researchers through the years due to its impact on students' academic performance. This action research study aims to uncover the pedagogical effects of applying the flipped classroom strategy to Grade 3 students' poetry writing skills. The researcher applied the triangulation technique where the data were analyzed through multiple resources to get more reliable information. A researcher-made test on concepts on poetry was given to the participants as the pretest and the post-test of the study, worksheets, quizzes, and Culminating Unit of Assessment (CUA) results were used for as a quantitative data, whereas questionnaire on students' perception of the program through G-form, interview results, poetry writing for their main output and researchers observations were used for the qualitative data gathering. The research participants were chosen purposively, coming from three sections in Grade 3 (n=74). To achieve this, a 4-week plan was designed to provide students with activities on poetry writing. The students received the flipped model of instruction, materials were given to them ahead of time through their Learning Management System (LMS) which is the Seesaw Application, moreover, this is a student self-paced learning. The researcher used descriptive statistics in interpreting the results of the pretest, the post-test, and the feedback forms for data analyses. The results indicated that there was a statistically significant difference in terms of the students' writing skills based on the data gathered, it also revealed that the students had a positive attitude towards the program.

Professional Training, Development & Concerns in Education

59325
Simulation & Apprehension with Digital Dentistry: Is Active Learning Really Needed?
Les Kalman, Western University, Canada

Students' perspectives on teaching from a small size of fourth year dental students and Internationally Trained Dentists II candidates was examined on an experiential learning digital dentistry elective course. A questionnaire was developed and distributed to 10 dental students before and after the course. Each question was rated on a five-point Likert scale. The Wilcoxon Signed Ranks Test was used. All data analysis was conducted by Excel at the 0.05 level of significance. There was a 90% improvement that was detected in the students' perspectives after the course. All of the students (100%) reported an improvement in knowledge with a digital scanner after the course. Although students' perspectives demonstrated a change in almost all the participants (90%) after receiving the course, this change was not statistically significant. There was no significant difference in students' knowledge of digital dentistry before and after receiving the course. The dental profession is rapidly changing technologically, and it seems appropriate that dental education should include digital dentistry. However, from this study it may be concluded that a suitable number of student participants are required for the elective courses.

Teaching Experiences, Pedagogy, Practice & Praxis

59243
Signature Pedagogy: Using Equity Audits to Identify Complex Problems of Practice
Dusty Palmer, Texas Tech University, United States

The purpose of this study was to understand the impact of a signature pedagogy used in a doctoral educational leadership program. Our doctoral program is designed for action-research for doctoral students to identify and take action on a problem of practice within their school district. The problem of practice is rooted in Rick Mintrop's design-based school improvement model. Furthermore, specific tools are taught to doctoral students so that they can identify deep-root problems within the school context. In this study, an equity audit was used as a tool for doctoral students to identify areas associated with equality, ethics, or social justice. The researcher examined 39 doctoral students' equity audits through a content analysis lens to identify commons themes. The inquiry leads to doctoral students identifying inequitable areas in their school district and creating action steps to address them. There were five themes that emerged: payroll teachers compared to the state average, the imbalance of teacher demographics verse student demographics, lack of funding for special populations, a disproportionate amount of discipline referrals of minority students, and the low percentage attendance rate of student sub-groups. Furthermore, using the equity audit as a tool to examine school districts has started the process for doctoral students to identify a complex problem of practice in the field.

59393
Fostering Learner Autonomy Through Personalized Project-based Learning
Juan Villaflor, Defense Language Institute Foreign Language Learning, United States
Ying Zhang, AnQin Normal University, China

Learner autonomy is crucial to the success of foreign language teaching and learning. Although it is defined differently, the essence of learner autonomy is to engage learners in the teaching and learning process. Traditionally, project-based learning is introduced into foreign language classrooms to enhance learner autonomy by involving learners into teacher-directed projects that connect language learning and its application. The greatest challenge, however, is the students' unwillingness to participate in the language projects which is caused by lack of personal connection with the projects. According to iNACOL, personalized learning advocates tailoring learning according to students' strengths, needs, and interests and enabling student voice and choice in what, how, when, and where they learn. This presentation will propose that project-based learning be coupled with personalized learning to encourage personalized projects for students. Unlike traditional teacher-directed projects, personalized projects invite students to design and carry out their own projects, which enable students to bring relevance to the project work and take ownership of their learning. This presentation will also put forward a seven-step framework to effectively design and implement personalized project-based learning.

IICEHawaii Virtual Presentations (Pre-Recorded)

Teaching Experiences, Pedagogy, Practice & Praxis (cont'd)

59498
Utilizing an Online Extensive Reading Graded Reader Programme in a Japanese University
Stephen Jennings, Tokyo University of Science, Japan
Marcus Sakellarios, Tokyo University of Science, Japan
David Gann, Tokyo University of Science, Japan

In this study, we take into consideration the reform in English education policy in Japan, the reasons for recent national and institutional policy reform and the repercussions in the teaching of reading. We consider the background to reading instruction in order to outline the shift from research governed by a behavioural approach to a psycholinguistic model of the reading process. This leads on to a summary of how intensive and extensive reading is taught in 1) an English as a second language; and 2) on the English as a foreign language context. Thereafter, we analyse the benefits and pitfalls of introducing first- and second-year students to an online extensive reading programme called MReader. There were both administrative and practical obstacles to overcome. The study concludes with a statement of future goals.

59516
Multigrade Teaching Experience in Ilocos Sur: Basis for Extension Program
Necy Cesaria Romo, University of Northern Philippines, Philippines

The main goal of this research is to describe the teaching experiences, problems, and concerns of fifty-seven multigrade teachers of schools in Ilocos Sur. It analyzed the positive and negative impacts of multigrade teaching, which was the basis for an extension program. The study made use of the descriptive survey method of research. The results showed that majority of the respondents are handling Grades 1 & 2 classes; 21-25 years of age, married, females, bachelor's degree holder; with 6-10 years of experience, belong to Salary Grade Scale of 11, and have attended training in the district, division, regional, and national level. The respondents believed that the level of assessment of the multigrade classes is very satisfactory; there is no significant relationship between the profile of the respondents and the level of assessment on multigrade classes; there are no significant differences on the three sets of respondents. Also, participants responded that there is too much work for teachers in multi-grade classrooms. Nevertheless, they enjoyed and are used to teaching multigrade classes. Given such findings, the "Turo Mo, Gawa Ko, Kagalingan ng Mag-aaral Ko:" (Your Teaching, My Output, Improvement of my Learners)A CTE Extension Program is proposed to provide supplementary aid to multigrade teachers.

59486
Students' Satisfaction, Efficacy, and Achievement on Learning Science, Technology, and Society (STS) Online Course
Jose Noel Fabia, De La Salle, College of St. Benilde, Philippines
Maricar Prudente, De La Salle University, Philippines

The global pandemic has brought an unforeseen change in the field of education. Different schools have to shift to online teaching to continue the students' education to cope with the adversity. This study explores the students' satisfaction, self-efficacy, and academic achievement using online learning materials in the Science, Technology, and Society course. This study employed a mixed-method action-research design and utilized a case study approach. The researcher used the Students Satisfaction in Distance Learning Questionnaire, Self-Efficacy for Self-Directed Learning Questionnaire, teacher-made tests (pretest and posttest), interview, and reflective journal sources of data. The quantitative and qualitative data were analyzed using the joint display analysis. This case study's intervention was implemented in a private college in Manila, Philippines, where 25 students participated. After the intervention, most students are satisfied with the teacher and the students' interaction, the teacher's performance, and the course content. Simultaneously, the student has commendable self-directed skills in performing the online tasks that made them efficient in the course. Moreover, there is an increase in the students' scores in the posttest, revealing a significant and higher difference from the pretest, making the online learning materials in STS effective. Still, the students' learning primarily depends on the lesson design, materials, teacher's technical abilities, modes of interaction, and the course's relevance. Thus, the teachers should emphasize the lesson design, develop technological skills, promote proper communication with the students, provide meaningful learning activities, consider students' mental health, and use asynchronous online teaching strategies.

58579
Moral Choices in Class: The Importance of Reminders
Maura Pilotti, Prince Mohammad Bin Fahd University, Saudi Arabia
Tahani Algouhi, Prince Mohammad Bin Fahd University, Saudi Arabia
Eman Abdulhadi, Prince Mohammad Bin Fahd University, Saudi Arabia
Jood Alhowais, Prince Mohammad Bin Fahd University, Saudi Arabia

Circumstances, such a difficult test or a looming deadline, may challenge the rectitude of otherwise honest students. According to the self-concept maintenance model of Mazar, Amir, and Ariel (2008), if the opportunity for dishonesty arises, students may misbehave, but very little so that their positive self-concept is not substantially tarnished (Goldstone & Chin, 1993). Events in the current situation, such as reminders of either religious principles or secular justice, can prime students' ethical standards, thereby deterring dishonesty. Yet, depending on the relative prevalence of religious values over secular values in their society, religious reminders may become superfluous (adaptation response) or have a stronger impact as the values they represent can be easily brought to mind (recency effect). In the present study, students from Saudi Arabia, where religion is inserted in everyday life, were given the opportunity to cheat. Specifically, they were asked to self-assess their performance on a math task while believing that their assessment would either be anonymous (opportunity-to-cheat condition) or be linked to their names (control condition). Before self-assessment, students were exposed to religious or secular reminders of honesty or to neutral primes. In agreement with the evidence of earlier studies conducted in the Western world, students inflated their self-assessments very little, and even less when presented with either secular or religious reminders of honesty. Comments during debriefing suggested that secular ethical values of justice were often seen as expressing Islamic principles. Implications for instructional practices in the classroom are discussed.

IICSEEHawaii Virtual Presentations (Pre-Recorded)

Clean and Affordable Energy

59026

Striving for Energy Autonomy? An Empirical Investigation of Homeowners' Drivers and Barriers to Participation in Community Energy Systems in Germany

Karen Wesely, TU Dortmund University, Germany
Christian Thommessen, University of Duisburg-Essen, Germany
Hartmut H. Holzmüller, TU Dortmund University, Germany
Angelika Heinzel, University of Duisburg-Essen, Germany

Despite extensive political funding programs, the energy consumption in Germany for space heating and hot water stagnated on a high level of 870 TWh over the past few years and even exceeded the level of 2010. To reduce consumption and meeting energy-efficiency goals, private homeowners need to participate in community energy systems (CES). However, homeowners' reluctance to join CES constitutes a major issue which recent research has not clarified so far. Focusing primarily on local district heating systems, we use two theoretical approaches, motivation and attribution theory, to shed more light on drivers and barriers in the decision-making process of homeowners. To gain insights, an explorative research design was chosen. Up until now, we are able to report findings from 22 problem-centered interviews with homeowners as well as experts. Our results show that subjectively perceived energy autonomy can be a barrier for private homeowners to participate in CES. Furthermore, there is a discrepancy between objective energy autonomy, as defined from a technical perspective, and homeowners' perception of it. Regarding this, our results demonstrate that the two major aspects shaping homeowners' perception of energy autonomy are (1) perceived independence from third parties as well as other external influences, and (2) a sense of control over the home energy system and its costs. Our study provides new insights into the decision-making process of homeowners to participate in CES. Additionally, we identified several implications in how far practitioners can address subjectively perceived energy autonomy to activate homeowners to join CES.

Climate Change

59376

Assessment of Thermal Comfort and Microclimate in Urban Street Canyons – A Review of Recent Research

Clarence Dissanayake, University of Moratuwa, Sri Lanka
U. G. D Weerasinghe, University of Moratuwa, Sri Lanka
Janaka Dharmasena, University of Moratuwa, Sri Lanka

Streets are among the major components of Cities where walkability and livability can be enhanced by creating comfortable environments. But, as the global mean surface and air temperature have been projected to increase during this century, the intensity of corresponding extreme thermal stress events are also expected to rise thus making significant contributions towards global warming in the foreseeable future. This paper is based on recent studies on assessing microclimate and thermal comfort in urban street canyons. The results of recent research concluded that the street morphology, properties of street surfaces, vegetation cover are the main design factors, and Air temperature (Ta), Wind speed, Wind direction, Relative humidity (RH), and Mean radiant temperature (MRT) are the dominant meteorological parameters affecting the level of thermal comfort. Street aspect ratios H/W, sky view factor (SVF), and Street axis orientation are key parameters of street morphology, while the parameters of vegetation are categorized into Geometry, density, configuration, and physical properties of plants. Furthermore, surface albedo, color, and reflectance are identified under the properties of street surfaces. The tendency of recent research approaches has been to rely on simulation modeling with reference to different design scenarios employing specified thermal comfort indices. Further, thermal comfort assessment coupled with different vegetation configurations, street-level ventilation, and varied asymmetrical street aspect ratios have not received adequate attention in previous studies yet. By the end of this review, ENVI-met micro-meteorological simulation model employing with Physiological Equivalent Temperature (PET) is suggested for future research on microclimatic improvements in street canyons.

59043

Get Out of Your Comfort Zone: Externalization in Architecture to Increase Social and Environmental Connectivity

Christina Brown, Carnegie Mellon University, United States
Erica Cochran, Carnegie Mellon University, United States
Dana Cupkova, Carnegie Mellon University, United States
Vivian Loftness, Carnegie Mellon University, United States
Azadeh Sawyer, Carnegie Mellon University, United States
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Buildings currently account for 39% of energy-related carbon dioxide emissions annually, worldwide. Despite the acceleration of climate change, architecture is increasingly designed as hermetically sealed boxes, requiring increased conditioning, which in turn further contributes to the greenhouse gas emissions warming up our planet. In addition to disassociating people from the natural environment, this also creates spaces where people disconnect from their community, and live within boxes both physically and socially. Though current research addresses many environmental and human health concerns that arise from internalized architecture, it does not address the social disconnection nor is there any specific terminology and research that focus on externalizing programming as a strategy. To fill this gap, this synthesis establishes important terminology and research to support 'externalization', and explores the environmental and social impacts of externalizing programs through both design evaluation and morphology. Through thorough literature review, case studies research and analysis, the importance and impacts of externalization is defined. Then an externalization taxonomy is developed to support designers in two ways – as a design evaluation tool and as a design support for integrated architectural design and innovation that would better demonstrate how externalization can create integrated designs that provide layers of environmental, social, and health benefits while reducing the total building energy demands. Especially in the context of the current pandemic (COVID-19), externalization is evermore important. The synthesis provides the necessary groundwork to allow for externalization to be researched further, and provide designers the necessary framework to shift towards externalized design approaches.

IICSEEHawaii Virtual Presentations (Pre-Recorded)

Climate Change (cont'd)

59081
Foreign Economy and Carbon Emissions: A Verification From Threshold Effect of Development Disparity in China
Zhiguang Song, Sophia University, Japan

Since the proposal of China's biggest cross-border project (Belt & Road Initiative), China's foreign trade and investment have experienced rapid growth, making the correlation between economic growth, external economic activities, and environmental pollution in China has been a focusing issue. On that basis, the non-linear relationship between China's foreign investment and trade, and level of carbon emissions will be conducted based on a panel data of 30 administrative divisions in 2003-2017. Specifically, the threshold regression model with fixed effects is applied to verify how's the threshold variables of economic growth and technique investment will impact such relationship as structural breaks. Consequently, given sustainability and emission reduction in China, the empirical results first suggest that outbound investment & trade activities with a higher level of domestic economic growth or technique investment can significantly help reduce carbon emissions through technology feedback in China (i.e., marginal increase in China's outward investment will emit less domestic emission level when GDP (Gross Domestic Product) exceeds 18542.395 Chinese yuan/per). In particular, based on the spatial-temporal features of threshold variables, it is supported that less developed areas in economic growth and technique investment like Southwest and Northwest China (i.e., Guizhou, Guangxi, Xinjiang, and Qinghai in this study) are empirically supposed to actively seek overseas economic cooperation in low carbon industries, and central government should also give more policy priority to those regions to help them to cross the threshold of economic development, to achieve a low-carbon and sustainable development.

Consumption, Production & Waste

59410
BioTRIZ: Subsidies for Projects in Biomimicry and Design
Alice Marques de Sa, University of Brasilia, Brazil
Dianne Viana, University of Brasilia, Brazil

Biomimicry combines multiple perspectives from the biological sciences to generate creative productions through emulations of nature. In this sense, the integration of tools of such field in the design area is valuable and it would, ultimately, stimulate the transformation of the production cycles so that they can resemble the rich systems of the biosphere. Therefore, the present work aims to investigate the relevance of the applications of biomimicry tools in design, and, more specifically, the use of the BioTRIZ matrix, through a literature review. Therefore, the descriptor "BioTRIZ" was used in international databases. On the Web of Science, 6 publications were obtained in the period from 2008 to 2020. 8 works were found in Scopus between 2008 and 2020. In Google Scholar, a search for Brazilian contributions was conducted in the same period of the aforementioned repositories, totaling 4 publications. The prevalence of BioTRIZ in projects in engineering, design and technology was evidenced. In addition, it was noted that the principles of innovation derived from biological systems tend to provide more numerous and creative contributions in terms of generating alternatives. It is also worth mentioning that BioTRIZ is more adaptable to ecological and sustainable practices compared to the TRIZ tool. Furthermore, when adopting aspects of biomimicry in their repertoire, professionals integrate natural knowledge that demonstrate potential to propagate innovative projects based on the conservation of biodiversity and that can also stimulate quality of life. It is suggested to analyze and experiment with the BioTRIZ tool in new project contexts.

59320
Environmental and Social Engagement Best Practice to Face Pandemic Circumstance: A Sharing From Vale Indonesia, Sorowako Site
Dewi Permatasari, Environmental Professional, Indonesia
Sudirman Payangan, Vale Indonesia, Indonesia
Aris Prio Ambodo, Vale Indonesia, Indonesia
Gunawardana Vinyaman, Vale Indonesia, Indonesia
Abu Ashar, Vale Indonesia, Indonesia

The COVID-19 pandemic in 2020 has broken the normal bonds of human interaction, whether in the personal sphere or in the industrial sphere, regardless of where a person happens to live. Several industries which play important roles in fulfilling global demands, including the nickel mining and smelting industry, still need to resume operations in full regardless of the global disruption caused by the coronavirus outbreak. They also have to maintain an environmentally-friendly practice while stepping up social engagement to support community who has been adversely impacted by the pandemic. This paper focuses on how Vale Indonesia is still conducting its business operations to maintain its daily business while adhering to the precautionary measures on its surrounding communities.
Vale has actually coined several innovative programs to improve environmental concern, consisting utilization of waste materials to reduce demands for single-use ones. On the other hand, the company has also focused on conducting social engagement and community support activities, especially by providing life support assistances and programs which can boost the communities to be more productive and improve their capacities to be resilient amid the devastating impact of the pandemic. Vale has calculated that Sorowako sites will be able to maintain their environmental management by contributing to energy efficiency 12,626.00 GJ, emission reduction 17 tons of PM, waste utilization (hazardous 1,994,402 tons and non-hazardous − 20,000 tons), waste efficiency 586,087,488 m3, wastewater effectiveness 19.94 tons of TSS, reclamation activity of 149 plants species and empowered more than 5,000 communities over the course of a year.

IICSEEHawaii Virtual Presentations (Pre-Recorded)

Education

59359

The Role of Social Media in Health Communication: Implications for Coronavirus Disease
Yu-Ning Chuang, University of Sheffield, United Kingdom

As the Coronavirus disease (COVID-19) pandemic around the world, which have highlighted the power of social media. The media has a significant agenda-setting role in health communications (e.g. Eysenbach, G. 2008; Chou, W.Y.S., Hunt, Y.M., Beckjord, E.B., Moser, R.P. and Hesse, B.W. 2009). Kamel Boulos and Wheeler (2007) emphasized the social media plays an enabler in health communication for organizations, clinicians, patients and laypersons. In this paper, I observe the news representation of COVID-19 and how the reporters play the role in sustainable education on health communication. In this paper, I collect the COVID-19 news during the COVID-19 period (March 13–April 21st) and the pre-COVID-19 period (January 8th-March 12th) in the top five popular news pages in Facebook in Taiwan and then access the content analysis. In preliminary observation, the news performance of pre-COVID-19 in Taiwan is similar to German (Quand, Boberg, Schatto-Eckrodt and Frischlich 2020), which represents that the social media plays a main approach in providing the knowledge of COVID-19 and spreading panic at the same time. And reflects the structure changing of the Facebook coverage from lack of coverage to a broad range of coverage on Corona-related issues and societal concerns. Along with new media developments, it is necessary to understand the news performance of the COVID-19 on Facebook, which will be of benefit to improve sustainable education on health communication.

Industry, Innovation & Infrastructure

58829

Establishing Strategic Legitimacy for Canadian Firms: The Influence of Corporate Characteristics and International Activities on the Level of Sustainability Reporting
Philip Walsh, Ryerson University, Canada
Ranjita Singh, Ryerson University, Canada

Corporate sustainability reporting has been recognized as a strategy for firms seeking to establish their legitimacy as sustainable companies. This study seeks to expand upon the existing empirical literature by examining not only traditional corporate characteristics that influence the level of sustainability reporting but also less-examined characteristics such as their internationalization and their operation in emerging economies. A review of 234 large Canadian-based, publicly-traded companies was undertaken to examine the use of the Global Reporting Initiative (GRI) framework and to test hypotheses about the level by which sustainability reporting is associated with these characteristics. Our findings indicate that Canadian-based companies with operations in emerging economies are more likely to produce more comprehensive sustainability reporting than those who do not, suggesting heightened sensitivity to establishing strategic legitimacy when active in developing countries. The influences of corporate size, industry, and level of internationalization were not significant.

59020

A GIS based Green Infrastructure Planning Framework for Water Sensitive Spatial Planning
Anjana Bhagyanathan, National Institute of Technology Calicut, India
Anju John, National Institute of Technology Calicut, India

Green Infrastructure is a network of strategically planned natural and semi-natural areas that provide a wide array of ecosystem services. As the world is changing at a fast pace, interconnected green spaces are more likely to survive and contribute to the wellbeing of human settlements rather than isolated ones. The spatial aspect of this network is largely dependent on the ecosystem service that is prioritized for the region. For tropical belts that combine high population density, rainfall, and landscape change due to rapid urbanization, flood control through runoff management is of paramount importance. We are exploring the case of Kerala, the southwestern state of India here. The region is witnessing rapid conversion of green and blue areas into built-up areas. Large-scale Land-use/ Land-cover (LULC) changes are taking place in the state. This unplanned urbanization is causing tremendous pressure on existing green infrastructure. Systematic GIS-based studies on hydrological response to LULC changes are imperative in the current scenario where flood control is of foremost importance, for arriving at a systematic green infrastructure plan that addresses runoff management. It is anticipated that this GIS-based framework for systematically delineating green infrastructure will have applications in urban and regional planning and nature conservation fields.
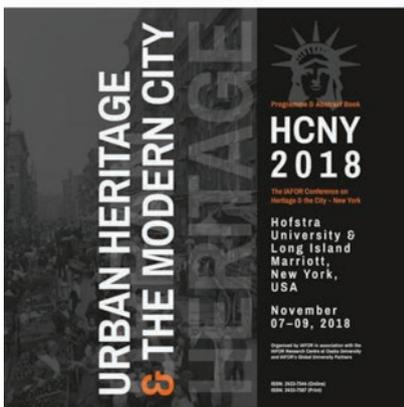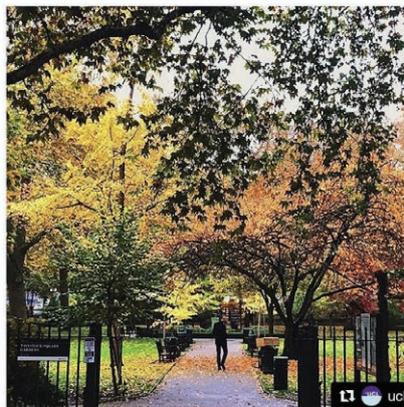
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Tokyo, Japan, 2021

March 22–24, 2021

The Asian Conference on Education &
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(aceid.iafor.org)

March 25–27, 2021

The Asian Conference on Language
(acl.iafor.org)

March 29–31, 2021

The Asian Conference on Psychology & the
Behavioral Sciences
(acp.iafor.org)

The Asian Conference on Ethics, Religion &
Philosophy
(acerp.iafor.org)

The Asian Conference on Aging & Gerontology
(agen.iafor.org)

May 23–26, 2021

The Asian Conference on the Arts & Humanities
(acah.iafor.org)

The Asian Conference on the Social Sciences
(acss.iafor.org)

June 02–05, 2021

The Asian Conference on Cultural Studies
(accs.iafor.org)

The Asian Conference on Asian Studies
(acas.iafor.org)

November 25–28, 2021

The Asian Conference on Education
(ace.iafor.org)

Singapore, 2021

May 13–15, 2021

The Southeast Asian Conference on Education
(seace.iafor.org)

London, UK, 2021

July 15–18, 2021

The European Conference on Education
(ece.iafor.org)

The European Conference on Language Learning
(ecll.iafor.org)

July 22–25, 2021

The European Conference on the Arts & Humanities
(ecah.iafor.org)

The European Conference on Media,
Communication & Film
(euromedia.iafor.org)

Kyoto, Japan, 2021

November 09–12, 2021

The Asian Conference on Media,
Communication & Film
(mediasia.iafor.org)

The Kyoto Conference on Arts, Media & Culture
(kyoto-amc.iafor.org)

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