

# ACE 2019

Toshi Center Hotel, Tokyo, Japan  
October 31 - November 3, 2019

## Final Draft Schedule

### Please Check & Confirm

Please check that all information pertaining to you is correct and notify us at [support@iafor.org](mailto:support@iafor.org) if there is any error.

Please notify us of any corrections by **Sunday, October 6** 09:00 (Japan Time).

### Final Schedule

After minor changes have been made to the schedule we will send you a link to the final schedule.

The final schedule will contain session information and a detailed day-to-day presentation schedule (including room allocations and session chairs).

This will be available on **Tuesday, October 22.**

All Abstracts will also be available online at this time.

Saturday at a Glance  
November 2, 2019

**Toshi Center Hotel – Conference Center (6F & 7F)**

09:00-10:15	Parallel Session I
10:15-10:30	Coffee Break
10:30-12:10	Parallel Session II
12:10-13:10	Lunch Break
13:10-14:25	Parallel Session III
14:25-14:40	Coffee Break
14:40-16:20	Parallel Session IV

Please note that all abstracts are printed as submitted. Any errors, typographical or otherwise, are the authors'.

## Saturday Session I: 09:00-10:15

Room: *To be Announced in Final Schedule*

Session Topic: Policy

Session Chair: *To be Announced in Final Schedule*

### 54102

#### **Pakistan Higher Education System: Policies and Reforms**

Irshad Ahmad Khan, Community Development Organization, Pakistan

Mukammil Shah, De Laas Gul, Pakistan

Education assumes an important job in the advancement and improvement of a state. Advancement of any nation relies on its proficiency rate and nature of instruction in that nation. In this way, it is the key needs of countries. Sadly, our own nation, Pakistan, is a regressive one with respect to its proficiency rate. Indeed, even numerous poor nations have higher education rate in contrast with Pakistan. Our policy framework and priority is in charge of this. Higher education has incredible significance in the improvement of a nation. Be that as it may, sadly, its significance is yet to be acknowledged in Asian nations. For over 70 years, Pakistan has been attempting to inspire their instructive standard by giving quality advanced education to their natives. Yet there are numerous deterrents and obstacles that are rising. These difficulties (amount, value, quality, and so on) are exceptionally normal in nature however require an appropriate methodology to address in the best way. The study explains major initiatives in higher education institutions in Pakistan according to experts, likewise investigates the job of Higher Education Commission (HEC) of Pakistan in presenting these changes. By utilizing subjective research technique, the examination embraces an illustrative research way to deal with present an all-encompassing perspective on the key change activities in HEIs both as far as substance and procedure. The study highlights the major issues, policies, challenges and reforms in higher education of Pakistan in the minds of University professors from public and private sectors.

### 53295

#### **Linkage Among Education Policies, Schooling Attainment, and Employment in the Philippines**

Ma. Laarni Revilla, National Graduate Institute for Policy Studies (GRIPS), Japan

Jonna Estudillo, National Graduate Institute for Policy Studies (GRIPS), Japan

It is by now well-known that schooling is positively correlated to the probability of being employed. Yet the linkage among education policies, schooling attainment, and the probability of being employed largely remains unexplored in developing countries. The study investigates the relationship among education reforms, schooling, and employment in the Philippines using the regression discontinuity design (RDD). RDD could address the endogeneity problem if schooling is used as independent variable in the employment function. We exploit the timing of the free and subsidized secondary education policies in 1989 to create our instrumental variable on program exposure. Specifically, those who benefited from the policies are part of the treatment group, while those who did not benefit are part of the control group. We conduct our analysis using individual-level data from the 2008 and 2011 Annual Poverty Indicators Survey. We present three main findings. First, policy beneficiaries have significantly higher educational attainment (0.17 to 0.21 more years of schooling) denoting that the programs lowered the costs of schooling borne by parents. Second, schooling has no effect on the probability of being employed. This result may be explained by certain mechanisms, which include macroeconomic shocks, lack of well-targeted education programs, low labor demand, and poor schooling quality that lowers employment probability. Lastly, among employed individuals, additional schooling leads to higher income. Hence, the benefits of free and subsidized

education in the Philippines can only be realized if an individual is employed. This study recommends a holistic approach in strengthening the education-labor market linkage.

**53132**

**Pedagogical Quality in Developing 21st Century Skills: Status and Policy Implications**

Daniel Jr. Saroca, De La Salle Araneta University, Philippines

The Enhanced Basic Education Act of 2013 lengthened the ten-year Philippine basic education into twelve, wherein graduates are expected to be equipped with the skills that shall prepare them for either higher studies, employment or entrepreneurship. The study aimed to determine the status of the upper secondary Science, Technology, Engineering and Mathematics (STEM) pedagogical quality in developing 21st century skills and then utilize identified issues to draw implications for policy formulation. The study was conducted to ten teachers and 333 students, which underwent several iterative evaluation processes, both quantitative and qualitative. Quantitative data were obtained through survey questionnaires, self-reflection tools, documentary analysis guides and observation evaluation forms. Qualitative data were obtained from focused group discussions among students and teachers and interviews among administrators. Triangulation of results were able to determine the “good” status of the pedagogical quality in the development of 21st century skills among students. Four policy implications were derived from identified issues namely: the inclusion of 21st century skills development in the learning documents; the provision of high-quality learning facilitation through training; the establishment of an excellent learning environment; and the provision of effective learning processes.

## Saturday Session I: 09:00-10:15

Room: *To be Announced in Final Schedule*

Session Topic: Teaching Students with ASD

Session Chair: *To be Announced in Final Schedule*

**53285**

### **Teaching Students With Autism Spectrum Disorder (ASD): An E-module for Teacher Training in the Lao People's Democratic Republic**

Somchay Makesavanh, Souphanouvong University, Laos

Hui Min Low, Universiti Sains Malaysia, Malaysia

Lay Wah Lee, Universiti Sains Malaysia, Malaysia

Tze Peng Wong, University of Nottingham Malaysia, Malaysia

Ann Sien Sut Lee, Universiti Sains Malaysia, Malaysia

Bounthieng Vongsouangtham, Souphanouvong University, Laos

The global prevalence of autism spectrum disorder (ASD) has increased markedly in recent decades. However, many mainstream teachers are lacking knowledge and skills to teach students with Autism Spectrum Disorder (ASD) in inclusive settings, particularly in the least-developed countries. To address the issue, we designed an e-module called 'The Story of Khamdy', which is uploaded onto Facebook Social Learning Platform as a free online resource. A novelty of this e-module is the presentation of a story through the compilation of 160 pictures that illustrate the everyday experience of a boy with ASD called Khamdy and how his parents and teachers helped him cope with daily living challenges. The acquisition of knowledge from the story was reinforced by 100 quiz questions which were designed to facilitate knowledge recalling and retention. The generalization of knowledge was enabled by the application of CCAF model (the initials stand for context, challenge, activity, and feedback) in the design of 12 assessment questions of this e-module. In a preliminary study, the social validity and user satisfaction of this module was assessed to inform the effectiveness of this e-module as a virtual interactive e-learning application for the purpose of ASD teacher training in Lao's People Democratic Republic, a country categorized as one of the least-developed countries by the United Nations. The social validity was assessed using the adapted Intervention Rating Profile while the user satisfaction was assessed and analysed according to Kano's customer satisfaction model. The findings offered insights to inform future trend in teacher training using open-access online resources with proven effectiveness and sustainability.

**54530**

### **Initial Invention of Therapy Table for Autism to Avoid the Table Being Pushed or Flipped by Autistic Children**

Dwi Purnamasari, Sebelas Maret University, Indonesia

Lulu Purwaningrum, Sebelas Maret University, Indonesia

In individual therapy for autism, a problem occurs in which autistic children often push the therapy table. Further, in children with large posture, they can even flip the table upside down during tantrums because their energy can no longer be held by the therapists. This behavior disrupts the course of the therapy. This research was conducted through observations on 12 autistic children (9 boys, 3 girls) using video recordings, each in one duration of individual therapy session. Interviews were carried out with 20 therapists and parents of children with autism to determine the sitting habits of the autistic children, and find out how the children push the table. The results showed that 25% of children with autism pushed the therapy table, causing the table to flip upside down, while the rest of the children only displaced the table. The study identified the sitting habits of autistic children so that alternative table design recommendation using an addition of bottom mat was formulated. The mat addition attached at the bottom of the table can be used

more effectively during therapy. The results of this study can be taken into consideration when designing therapy tables for autistic children.

**52587**

**Assessment for Learning in An Inclusive Classroom: Questioning and Feedback for Learners with Autism Disorder Spectrum**

Hui Yong Tay, National Institute of Education, Nanyang Technological University, Singapore

Kiak Nam Kee, National Institute of Education, Nanyang Technological Institution, Singapore

Much has been written about “Assessment for Learning” (AfL) which many teachers understand to be “the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go and how best to get there” (Assessment Reform Group, 2002). In addition, the prevailing discourse on Assessment for Learning (AfL) seems to suggest that it functions in the same way across different contexts. However, it is conceivable that AfL conceptualized for mainstream contexts need to be differentiated for children with special needs in an inclusive classroom. This paper presents the findings of a study that focussed on questioning and feedback dialogue in mainstream classrooms that included high-functioning students with autism spectrum disorder (ASD). Through observing six mainstream teachers from five schools during lessons and separately interviewing the teacher and students with ASD, the researchers found that effective approaches focused on three considerations: addressing the cognitive needs of these students (e.g. precise and direct questions); their socio-emotional needs (e.g. affirmative feedback); and using supporting structures (e.g. visual cues). These three considerations of cognitive, socio-emotional and support needs provide a handy framework to guide practising teachers and teacher-educators. In addition to informing practice, the findings have implications on AfL theory as they expand our current limited view of AfL through the lens of those with special education needs.

## Saturday Session I: 09:00-10:15

Room: *To be Announced in Final Schedule*

Session Topic: Language Learning- Writing

Session Chair: *To be Announced in Final Schedule***53890****Peer-assisted Seamless Language Learning (PASLLI): A Theoretical Framework to Develop Student and Student Peer-mentor English Academic Writing Skills**

Edward Bacon, Rangsit University International College, Thailand

Timothy Boundy, Rangsit University International College, Thailand

The most effective form of feedback is teacher feedback, but in many cases, this is not always possible so the most suitable alternative form of feedback may be peer feedback. In this study, the researchers developed a framework incorporating peer-assisted learning (PAL) with seamless language learning (SLL) as part of an English writing course's curriculum in an effort to develop the participants' grammar and academic English writing skills. This newly synthesized framework has been established as peer-assisted seamless language learning (PASLL), as the outcome of this study should be able to aid higher education educators in how to accurately organize and operate a peer-assisted seamless language learning (PASLL) center as a part of a course's curriculum at their respective universities, and the types of results they could achieve. This mixed-method study, which was conducted at an international college in Thailand, found that by synthesizing elements to establish the PASLL framework, student academic skills could be developed in such an academic environment. While the participants' grammar skills developed in this study, they did not significantly develop; whereas the participants' academic English writing skills did significantly develop. With the world of academia incorporating more and more innovative academic projects or other courses of actions in order to augment student skills in various areas, PASLL centers could also be utilized to develop student writing skills, as well.

**54393****Identifying the Effects of Genre-based Writing Towards Senior High School Students' Writing Performance**

Erly Mulfias Yuli, University of Indonesia, Indonesia

This study investigated the effects of genre-based writing task could affect the eleventh grade high school students' writing performance in an English as a Foreign Language (EFL) context. The students were assigned to finish writing task in two genres with topics that they were familiar with. In the first task, students were asked to write cause-effect text. In the second task, students were asked to write recount text. The purpose was to find out if two different genres would result the same quality performance. It was conducted for about four months with thirty four eleventh graders and an English teacher participated in this study. This study used mixed method (qualitative and quantitative) and data were collected by using questionnaire, direct observation, and students' writing post-tasks. Students' writing tasks were assessed using analytic scoring rubrics. The findings show that students' writing performance in cause effect text has a higher grammar score than did in recount text, and a recount text got a higher vocabulary score than did in cause effect text. By this finding, teachers could prepare the senior high school students' ability to write in academic writing. Genre-based approach is one of suitable writing strategies that could affect students' writing performance. However, teachers should also consider students' linguistics knowledge in choosing genre texts for students' writing tasks.

**52998****Teaching about Citation and Plagiarism in First-year EFL University Courses in Japan: A Case Study**

The International Academic Forum

Tracy Zahradnik, University of Toronto, Canada  
John Rast, Independent Scholar, Japan

Integration of sources to help support claims in academic writing and presentations is a critical skill to develop during an undergraduate degree. A solid understanding of plagiarism and academic integrity can help students understand why citation is important. Understanding and the extent of formal instruction of this topic can vary in different cultures with a higher level of emphasis being placed in Western than Asian cultures. As many students studying at Asian universities choose to study abroad as undergraduates or continue their studies at a graduate level abroad where citation expectations are different the importance of developing this skill is increasing. This presentation will explore the literature on the topic of instruction of citation in ESL and EFL higher education in Japan and some recent events that have forced changes in this area. It will then look at a case study where foreign lecturers were asked to teach about plagiarism and citation in first-year English writing and communication courses in an EFL immersion environment at a Japanese university. This case study will be explored through a discussion on the techniques deployed in instruction during the courses and how they were modified in subsequent years based on student questions and assignment quality; sample worksheets and lecture slides will be shown and explained; and lessons learned and advice will be discussed. Finally this presentation will compare the techniques described in teaching about citation and plagiarism to the approaches taken in a Canadian university.



## Saturday Session I: 09:00-10:15

Room: *To be Announced in Final Schedule*

Session Topic: Teacher Education

Session Chair: *To be Announced in Final Schedule*

**52966**

### **What Do We Know About Reading Aloud in Teacher Preparation Program: A Summary of Research**

Tati Lathipatud Durriyah, Universitas Islam Negeri (UIN) Jakarta, Indonesia

Read aloud activity can be found in many literacy classrooms. Enough body of knowledge describes benefits of reading aloud for literacy development. In teacher education, the extent to which student teachers are prepared to conduct read aloud activity has been a focus of examination. This presentation reports a research summary about reading aloud in a teacher education context as accessed through CITE-ITEL a web access that identified empirical studies of initial preparation in the area of literacy, and through ERIC.ed.gov. Keywords such as 'read aloud,' and 'aloud' were used to generate studies contained reading aloud references. A major summary of research about reading aloud in teacher education program include the importance of giving student teachers a complete experience of reading aloud practice on a regular basis. Student teachers need to acquire the habits of doing an advance preparation and deep knowledge of both an appropriate text and relevant strategies for reading aloud, e.g., improving student teachers' expression when reading aloud. When it comes to practice read aloud in a real setting, research shades some lights on areas of student teachers' concerns. For instance student teachers tended to pay attention to read aloud management and the use of interactive read aloud language. Especially in a bilingual context, student teachers grew an awareness of bilingual learners and general language development issues. Multicultural books used in interactive read aloud became a springboard for students' authentic response and in the process student teachers gained an open-minded view towards having a multicultural curriculum.

**52818**

### **Teaching Strategies and Media used by Pre-Service English Teachers on Digital Era**

Yentri Anggeraini, Baturaja University, Indonesia

The digital era allows education practitioners to be literate on digital tools to support the learning process. As the future teachers, the pre-service teachers must be ready to face the technology changes, learn how to make teaching and learning process more interesting and meaningful, and how to apply the digital tools and media well. This qualitative case study aimed at evaluating the pre-service English teachers' teaching strategies and their media on Micro Teaching class. Observation, document in form of lesson plan, and audio-visual material were used to gather the data. The participants of the study were 20 of the sixth-semester students who joined Micro Teaching. The raw data were analyzed following the six steps of Creswell's qualitative data analysis. The findings indicated that role play, read-aloud, question-answer, discussion became dominant teaching strategies and the participants used visual media and audiovisual media. The visual media that had been used including the printed pictures, real objects, and flashcard meanwhile for the audio visual media was downloaded video: animated stories and nursery rhymes. This present study suggests that teacher candidates must upgrade their knowledge and competences on the use of digital media and effective teaching strategies in digital teaching.

**54752****The Use of E-portfolio to Facilitate Self-Reflection About Learning by Pre-Service STEM Teachers**

Emily Oon, University of Macau, Macau

Learning is not a one-time event but an ongoing process where learners advance from a stage to another with new knowledge learned and skills gained formed the foundation for cognitive and behavioral changes. Self-reflection is the key supporting the formation of new learning. What often occurred in class is that learning activities are not paced for self-reflective activities. While many higher institutions find ways to shift the passive teacher-centered teaching to learner-centered learning, many proposed external solutions. What has been neglected is priming way for students to think and analyze, which means to reflect their own learning journey; an internal solution. This work presents how pre-service STEM teachers document their reflections after each lecture of an undergraduate course using e-portfolio. The course aims to equip them with knowledge of the three main STEM curriculum components, namely STEM contents, learner-centered STEM pedagogies and formative assessments. Findings suggest that reflections leads to deeper understanding, increased engagement and confidence to be a high quality educator, despite of in lack of teaching experiences. By modeling the effective use of e-portfolio in documenting reflections about learning, the pre-service teachers experience firsthand beyond the traditional content dissemination teacher-centered teaching and as such they are likely to prime learning for their students in such a fashion that would eventually improve and modernize K-12 STEM learning.

## Saturday Session I: 09:00-10:15

Room: *To be Announced in Final Schedule*

Session Topic: Teaching Experience: Social Sciences & Humanities

Session Chair: *To be Announced in Final Schedule*

**53357**

### **The Traits, Attitudes, Skills, and Knowledge (T.A.S.K.) of Social Studies Student Majors**

Teddy Fernandez, Pangasinan State University-lingayen Campus, Philippines

The dominant view in teaching social studies remains that of 'the integrated study of the social sciences and humanities to promote civic competence, as defined by The American National Council for Social Studies. By civic competence is meant, generally, the virtue of good citizenship that must be developed in every learner. Aside from emphasizing cognitive domain in teaching-learning process, the superior objective of social studies instruction is more of the affective or geared toward values education. In brief, this study: (1) Described selected profile variables of respondents' Social Studies Student Majors; (2) Examined the required Traits, Attitudes, Skills, and Knowledge explicit and/or implicit from Curriculum, Syllabi, and Programme Objectives; (3) Identified and analyzed major Traits, Attitudes, Skills, Knowledge that future Social Studies teachers should possess; (4) Recognized those Traits, Attitudes, Skills, Knowledge already possessed by respondents'; and (5) Proposed suggestions to fill gap/s between T.A.S.K. already possessed against those which respondents' lack. This study adapted a mix of quantitative and qualitative methods and tools. A survey was administered and a set of qualitative methods (content/documentary analysis, interview, classroom discussion and observation) was applied to derive a full understanding of the respondents' perception. Data indicates that there are indispensable listing of positive Traits, Attitudes, Skills, and Knowledge (T.A.S.K.) that future Social Studies teachers should nurture and retain. These lists of T.A.S.K. could be basis for becoming an ideal Social Studies teacher and also as approach for effective teaching and learning.

**50957**

### **Doubting History**

Irene Borrás, University of Santo Tomas, Philippines

History as a science is ever evolving. Like those in the natural sciences, history should be not be seen as a dead-end subject. A course to take just to pass since it is part of the curriculum. One should use their knowledge in history as an instrument to surpass the suffering of the present time.

The historian brings with them their biases in writing history. He or she is a product of their own milieu. Each milieu has its own characteristic: its political, social economic and cultural aspect differs from the other milieu. As an individual, the historian is also influenced by his own upbringing, his educational background, economic status, and his political background. Thus, he is never free from his own biases which can be manifested in his work. This paper will focus on popular misconceptions about Japanese colonization in the Philippines and will try to debunk it through scientific analysis and the use of primary sources. It will further discuss the causes of such misconception. The paper will aim to offer a new perspective in looking at this period in Philippine history. Finally, it is the objective of the research to introduce a culture of doubt in history and back it up with sufficient and credible sources.

**53781**

**Humanities and Impact Case Study in Hong Kong Higher Education**

Waiming Ng, Chinese University of Hong Kong, Hong Kong

Nowadays, an impact case study has become an important part of assessment of the performance of individual academic programs. Unlike traditional methods of assessment that pays attention to academic publications and research grants, the impact case study focuses on social and economic impact and knowledge transfer. The rise of the impact case study has changed the academic environment in higher education. Now major programs are reaching out to the industries, government sectors, secondary schools, and the general public to share their knowledge and work with them to develop products. Higher education institutes in Hong Kong will introduce impact case study in 2020 and humanities disciplines feel that they are at a disadvantage in this assessment exercise. Using Japanese Studies at the Chinese University of Hong Kong as an example, this paper shows the challenge of the humanities to prepare for the impact case study.

## Saturday Session I: 09:00-10:15

Room: *To be Announced in Final Schedule*

Session Topic: Higher Education

Session Chair: *To be Announced in Final Schedule*

### 52663

#### **The Science of the Banana Cake – Development of Integrated Instruction on Science Knowledge and Skill by Using Hands-on Activities**

Jutharat Sunprasert, King Mongkut's University of Technology Thonburi, Thailand

Thiti Jarangdet, King Mongkut's University of Technology Thonburi, Thailand

Chayanuch Watthana, King Mongkut's University of Technology Thonburi, Thailand

Phanee Rattanachisit, King Mongkut's University of Technology Thonburi, Thailand

The baking activity is a science teaching enhancement course that is focused around using food to engage students in many topics in chemistry. The purposes of this study are to develop ways of integrating science knowledge and skills by using hands-on activities and to find out the effectiveness of a baking activity for teaching of concepts of the biomolecule and chemical reactions. The results showed that the scores for the posttests which are statistically significant difference of the control group (CG) ( $M=6.98$ ,  $SD=0.84$ ) and experiment group (EG) ( $M=8.67$ ,  $SD=1.60$ ). In pretest and posttest students were also asked to self-assess their knowledge by answering the following questions with "I am sure" and "I do not know". The number of students in the CG that assessed "I am sure" stayed about the same with a decrease in the answer "I do not know" at both answers "Right" from 41.46% on the pretest to 17.31% on the posttest and from 2.69 % on the pretest to 0.45% on the posttest, respectively. In contrast with the EG students, there was substantial improvement. Especially, "I am sure", encouraging is to increase in the number of right answers and decrease in the number of wrong answers. In the same way, "I do not know" results showed that the right answer increased after they learned with a baking activity. The results show that a baking activity can enhance students' understanding about conceptual knowledge and encourage students to realize the link between food and chemistry.

### 53413

#### **Followership in Mongolian Higher Education**

Laurel Lee, Soka University of America, United States

Leadership is a fluid process which is not contained within a person or position, which results in the study of followership being equally important in creating positive changes in our society (Barnes & Kriger, 1988; See, 1986). As the aim of higher education is to cultivate leaders who are the next generation of global leaders, it is important to examine the sense of followership of professors who are the role models for the future changemakers. Followership is defined as a social construct where both leaders and followers co-construct the relationship (Fairhurst & Grant, 2010). The research objective of this study is to examine the potential of followership of professors in higher education in Mongolia. This leads to the research question, "How do professors as followers contribute within the academic setting?" Kelley's Follower Typology (Kelley, 1988) and Cultural Values and Followership Framework (Can and Aktas, 2012) is used in analyzing the follower styles of professors as it places great emphasis on the motivations and behaviors of followers. Surveys and interviews were examined through the lens of culture and gender. The preliminary findings found that followership is a multi-dimensional concept with deep influences which stems from their individual identities. This study will allow educators to further understand leadership through the lens of followership in higher education. By understanding the fluidity of followership and leadership in educators within collegial setting, it will allow for a more wholesome understanding of the cultivation of emergence of leadership within each individual in the university setting.

53381

**Experiment Whose Education? – Exploring Experimental Education Students' Learning Process and Reflection on Current Education in Taiwan**

Joying Chu, National Tsing Hua University, Taiwan

Tzu-ying Su, Tsing Hua College of National Tsing Hua University, Taiwan

The research aims to explore the learning process and reflection on current education by the first experimental education students in National Tsing Hua University, which is currently the only university implementing the experimental education project in Taiwan in 2018. The research method is document analysis and in-depth interview. The students' application documents are analyzed, and then from the perspective of students, parents, school teachers and external school teachers, explore the essence of experimental education from different perspectives, how it helps them and the difficulties in the formal education. From the research results, no matter the students, parents, teachers, the nature of experimental education is different, students and teachers can support and communicate with each other, but most teachers still do not understand. In the course planning, students can use the graduation themes as anchors to plan their own university study maps. Atypical courses are adaptable and diversified. However, there are some students whose goals are uncertain due to the volatility of the experiment, and the content is still insufficient. Secondly, this study examines the embryonic form of experimental education in higher education from multiple perspectives. It is not only to open new cultivation of talent model for students to design independently but at the same time, students also stimulate another student's learning mode in the field of compromise and struggle.

## Saturday Session I: 09:00-10:15

Room: *To be Announced in Final Schedule*

Session Topic: Religion in Education

Session Chair: *To be Announced in Final Schedule*

**54566**

### **Integrating Reflections on Scriptural Text in Language Classes: The Southern Philippines and Bangkok Experience**

Maribeth Cabrejas, Lourdes College, Philippines

Jan Rey Cabrejas, Assumption College of Thonburi, Thailand

Scriptural Text Integration employed in some Catholic educational institutions throughout the world has become the core pedagogy that promises relevant and meaningful education for today's learner. This study investigated the experiences of the teachers and students in integrating Scriptural texts in language classes. It utilized a transcendental phenomenological research design. The study involved ten students and ten teachers in both Catholic schools in Southern Philippines and in Bangkok, Thailand. Focus Group Discussion and interviews were employed. Findings reveal that teachers used strategies such as careful choice of Scriptural texts; using Scriptural texts to broaden the topic; connecting Scriptures to life experiences; and use of Scriptural text as a platform for values formation. In terms of challenges, they expressed difficulty in having ample time for meaningful integration; Lack of skill in integrating Scriptural text; passivity of some students; and difficulty in word choice considering Thai students' spiritual background. In terms of effects on teachers, they have improved teaching effectiveness; empowered in shaping students' values; In-depth understanding of the lesson; self-fulfillment; and improved devotion to God. For students, this enabled them to gain deeper understanding of the lesson; evaluate their actions; make them more reflective; build closer relationship to God; and learn to share. From the findings, it can be inferred that such integration enabled teachers to experience a deep sense of fulfilment. Students too, developed the skill of discernment in their actions. Thus, it is recommended that teachers be trained and encouraged to continually integrate scriptures in their instructional processes.

**54338**

### **The Role of the Muslim Students' Association in Preserving Indonesia's Unity in Diversity**

Darda Abdullah Sjam, Indonesia University of Education, Indonesia

Students' organizations play very important roles in delivering the knowledge, the impression, and the spirit of Indonesian nationalism under the umbrella of Bhinneka Tunggal Ika (Unity in Diversity). One of the challenges currently faced by Indonesian students' organizations is their capabilities, or lack thereof, to protect their noble intentions from the interests of certain parties that take advantage of the students' activities and lead them towards something that in fact hurts the motto. In this context, the selection and orientation process is important in creating and strengthening the spirit of nationalism. Moreover, the emergence of religious students' organization contributes their own characteristics that are interesting to be studied further. Therefore, this research looks closer at how the concept of selection and orientation process in religious students' organizations, especially Islam Students' Association. In this article, the researcher sees that the selection and orientation process in religious students' organizations, such as Islam Students' Association have its own uniqueness and strength. It can be observed from the big number of members of Islam Students' Association who work in government offices, non-governmental organizations, private sectors, and other types of employment. They welcome differences and subscribe to the ideology of unity and what it entails, such as pluralism, democracy, as well as state administration and law enforcement. The three championed programs are the determinant factors in preserving Indonesia that unites in its diversity.

**53782****Together Action: Inter-Dependent Models of Education in Korean Buddhist Monasteries**

Hugh Schuckman, University of Utah, Asia Campus, South Korea

Whereas the Seon (Zen) Korean Buddhist project of personal awakening is a singularly independent, individual experience, the Korean monastic tradition and in turn Korean Buddhist education emphasizes the importance of “together action,” a catch-phrase for the important lessons learned in community. This presentation will focus on a case study of the Korean Buddhist Monastery Musangsa, which both continues and builds upon the Korean monastic tradition of practicing Buddhist teachings in a communal setting. The founder of this monastery and the Kwan Um school of Buddhism, Seung Sahn Sunim, likened the monks, nuns, and laypeople living in community to potatoes in a spinner, each one colliding into the other, slowly removing the rough outer skin and smoothing over the rough edges. Through archival research of dharma talks by prominent monks and nuns in the Kwan Um order as well as semi-structured interviews, this research presentation will highlight both the lessons and the importance of “together practice” in maintaining and promoting the core lessons of Seon Buddhism.



## Saturday Session I: 09:00-10:15

Room: *To be Announced in Final Schedule*

Session Topic: Internationalisation of Education

Session Chair: *To be Announced in Final Schedule*

**52338**

### **A Framework for Harmonization of ASEAN Graduate Science Education Curriculum**

Glen Mangali, Colegio De San Juan De Letran Manila, Philippines

Higher Education Institutions prepare people in a globalized economy. In the teaching profession, this may be addressed by pursuing post-graduate education and becoming teachers as learners. However, there is a gap in meeting the expectations of each institution in the global arena. The disparity is vividly shown on the different expectations and learning outcomes of post-graduate science education programs in different universities in ASEAN region. Hence, the current study is intended to fill the curriculum and program expectations gap in post-graduate science education which may affect the intended learning outcomes, content, teaching and learning method and assessment. The research employed case study method approach where the program in each country was examined one at a time. In this design, both the qualitative and quantitative data were collected concurrently. The results of the study showed that research, globalization and commitment are common educational pressures that influence the graduate science education curriculum in three countries. Through these educational pressures, various points of convergence and divergence in four curriculum elements were identified. Finally, the RIPILO Top Down Framework for harmonizing the curriculum in ASEAN Region was developed. The RIPILO Top Down Framework can be used in exploring connections which may engage ASEAN community in the region with emphasis on producing regionally competent students who are globally competitive and culturally accepted. It is in response to the educational reforms happening in ASEAN to produce future science education faculty, researchers and educational leaders who are multi-culturally ready.

**53834**

### **Negotiating Pedagogy Across Cultural and Educational Spaces in International Professional Experience Placements**

Debra Edwards, La Trobe University, Australia

How are understandings of pedagogy constructed, disrupted and negotiated by teacher education students? Professional Experience placements have long been, and continue to be, an integral part of Initial Teacher Education (ITE) and transition to the profession. Similarly opportunities to study in an international setting have a long history of inclusion in Initial Teacher Education and are seen as enhancing student growth, personally and professionally, as well as challenging students to consider issues of change, and diversity (Bennett, 1986; Parr et.al. 2017). In this presentation ITE student learning and teaching experiences during two short term international opportunities; one in urban and rural India and one in a regional Swedish city are examined. The initial findings indicate that short term international professional experience placements have the potential to conceptually challenge students' existing understanding of pedagogy, and the role of the teacher, as they experience teaching and learning in unfamiliar and uncertain settings.

**53281**

### **Determining Gaps Between Expectations and Reality When Studying Overseas: Graduate Diploma Students in a Private Training Establishment (PTE) in New Zealand**

Syed Jamali, ICL Graduate Business School, New Zealand

Dayal Talukder, ICL Graduate Business School, New Zealand

The aim of this research was to explore the gap between the initial expectations of students and the reality of studying overseas. Many countries, including New Zealand, have become important destinations for international students in recent years. When deciding to study in foreign countries, students are influenced by a number of factors in destination countries including the reputation of educational institutions, living costs, fees, whether the country is easy to enter or not, the possibility of immigration, job opportunities, security and lifestyle. Therefore, this study investigates foreign students' expectations compared with the reality of studying in New Zealand, in order to understand their views and motivations in studying in the country. Graduate diploma students from one Private Training Establishment (PTE) have been investigated as a case study. The study applied a mixed method research approach – a combination of the elements of both quantitative and qualitative analysis. A questionnaire technique was applied to collect primary data. The findings reveal that international students choose New Zealand as a destination because they believe that the country has a safe and peaceful environment, a high possibility of permanent residency after study, and a well-reputed education system. They generally experience difficulty in finding a job, which contradicts their prior expectations. They find that study is harder than in their home countries because of the language barrier, cultural differences and a different education system. They suggest that the school should provide support to help them find a job and should provide an internship programme.

## Saturday Session I: 09:00-10:15

Room: *To be Announced in Final Schedule*

Session Topic: Art & Music in Education

Session Chair: *To be Announced in Final Schedule*

**52260**

### **Mindful Music Instruction as a Strategy for Music Listening**

John Roger Obja-an, Assumption College, Philippines

The purpose of the study was to describe how mindful music instruction strategy helps in the assessment of music listening skills and how it makes the students understand and appreciate western classical music. Mindful music instruction is a concept as described by Anderson-Todd and Langer where constructs of mindfulness can be done thru direct instruction to the listener. Creative Music Listening Response by Kratus was used to describe successful music responses. Quantitative and qualitative descriptive research methods were used. The study was implemented to nineteen (N=19) all girls' students in Makati City. Mindful music instruction was given before listening to music listening selections with selections ranging from classical to romantic styles. Findings show that the students described a clearer image/emotion/story of the music with thorough explanations from beginning to end. These images/emotions/stories were well supported with descriptions of musical elements although accuracy and consistency of the terms needs to be given attention. The summary of scores of each student showed that seven had proficient level of music listening response while twelve have advanced level. Results of student self-assessment checklist, self-reflection and interview validated the facts of the findings as students show more appreciation and understanding of western classical music and become more aware and attentive to the music they listen to. Results of students' checklist seem to agree on the inaccuracy of using musical elements. Recommendations were given in the further use of mindful music instruction in music education in different settings, across different levels.

**53389**

### **Research on Theory and Practice of Art Characteristics Development in Junior High School**

Min Hui Tsai, National Changhua University of Education, Taiwan

The purpose of this study is to explore the status of the implementation of the theory of the development of artistic identity in the case junior high school, as well as to understand the situation and characteristics of the visual arts teachers in the case junior high school, the teaching strategies and the professional growth process. This paper adopts the art-based research, through observation and questionnaires, to understand the case of junior high school visual art curriculum design and teachers' teaching strategies. It is hoped that through the description and analysis of the case and teaching, new ideas can be provided to art educators. The conclusions obtained by this study are as follow: 1. Understand the theory of the development of artistic characteristics and apply it to the curriculum design of the junior high school. The visual arts teachers in junior high school can better understand the status of students and the process of learning art. 2. Through the application of the theory of artistic characteristics development in the process of designing the visual arts curriculum in the junior high school, we can understand the artistic development characteristics of students at this stage, so that students can learn the methods of artistic thinking and problem-solving in line with their development. 3. The junior high school visual arts teachers guide the teaching with the theory of art development, supplemented by exhibition activities, life science and technology, and information technology to assist students in learning.

**52343**

### **Korean Wave and Educational Change: What Effect did BTS have on Korean Education?**

The International Academic Forum

Borim Kim, Chungbuk National University, South Korea

The entertainer of the Joseon Dynasty was the occupation that be treated as a the lowest people. However, entering the modern society, entertainers became the most desirable occupation among students in Korean society. Students enter a famous entertainment company at a young age, and after a hard training, people who have gone through the process become popular celebrities. It is trained. BTS is also a singer group who has gone through these training methods, but their approach to the public is to encourage them as entertainers rather than to entertain the public as an entertainer, such as sharing a small daily life through SNS, communicating a positive message such as 'Love yourself' to the youth, It was different from other entertainers in that it had a message to say. It is necessary to review the positive and negative influences brought by the Korean Wave to Korean education. On the positive side, students' dreams are expanding in place of their dreams of having to go to a high-name value university where they can study because they have pride in Korean culture and culture can become global contents. Recently, however, daily lives that are hidden in colorful lives such as entertainer drug cases are revealed and the moral education is emphasized more.

## Saturday Session I: 09:00-10:15

Room: *To be Announced in Final Schedule*

Session Topic: Early Childhood Education: Technology

Session Chair: *To be Announced in Final Schedule*

**54553**

### **Design of a Digital Application to Aid Hindi Alphabet Recognition/Formation for Children With Learning Disability**

Abhishek Bose, Gojek, India

Jyotsana, Indian Institute of Technology, Kanpur, India

Dyslexia is the most common learning disability that majorly affects language development and reading. In India, dyslexic children despite being moderately intelligent and good with English alphabetic knowledge perform poorly in Hindi. These children find it very difficult to recognize and remember the shapes of the Hindi alphabets because of its complex features such as the curves, matras (dependent-forms), halants (half-form), etc. The importance of learning Hindi cannot be ignored especially in India where all the major day to day activities are carried out in the Hindi language. After knowing the problem, the authors revisit the Hindi Alphabets (Varnmala) and tries to find out how the complex features of the Hindi alphabets can be taught efficiently. The data and insights were gathered through observation sessions, video recordings and behavioral studies of 5 dyslexic children aged 8-12 years. Open-ended interviews with teachers and parents helped to understand the problem better. A deeper analysis of the Hindi language led the authors to reconstruct all the 48 alphabets of the script (36 Consonants and 12 Vowels) using combinations of just 10 basic shapes. Findings from these sessions helped authors to design and develop an interactive touch-based digital application that helps these children to recognize and form Hindi alphabets efficiently and also provides audio-visual feedback to the children which makes learning fun. Testing the application with 12 dyslexic children revealed that the average time to learn a new Hindi alphabet got reduced from 2-3 weeks to one week.

**53356**

### **Outdoorbuddy: A Wearable Device for Nature Exploration for Children**

Rahma Ahmed Ali Nasser Alrashdi, Keio University, Japan

The use of advanced indoor technology increased recently and kids become more addicted to it, disconnecting them from interacting with nature. This research aims at reconnecting kids with nature and encourage them to explore and increase their curiosity. Fieldwork was conducted to understand kids' interaction with nature: 1) While using explorers toolkit. 2) While using smartphones to assist them. The fieldwork's outcome showed that kids are curious about nature but they are facing some issues: a) They don't have a gadget to record their observations. b) They like to explore without holding tools nor documents. c) It is hard for them to refer to what they have explored earlier. d) They have unanswered questions and adults around them are either busy or unable to answer. e) Most importantly, they are unaware of what they do not know about the explored object (Information Gap). Kids should experience the surrounding environment through discoveries based on their interests or preferences, leading to the OutDoorBuddy project. OutDoorBuddy is a wearable device that helps kids with an interest in nature, detect new objects using deep learning object detection feature which automatically gives them questions/ comments about object of interest. OutDoorBuddy raise kids' awareness of their information gap while exploring. Kids can interact with the OutDoorBuddy by inputting questions as well. OutDoorBuddy is not providing full answers, as the main goal is to trigger kids curiosity. Furthermore, OutDoorBuddy is connected to a smartphone App on which kids can save their findings and create their own encyclopedia.

**54500**

**The Performance of Spatial Ability of 5 to 7 Years Old Schoolchildren Utilizing Computerized Immediate Feedback Assessment Technique (IFAT)**

Ching-Min Chang, Chung Chou University of Science and Technology, Taiwan

Shu-Chu Yang, National Chiayi University, Taiwan

The purpose of this study was to analyze utilizing Computerized Immediate Feedback Assessment Technique (IFAT) in Spatial Ability Test in 5 to 7 Years Old schoolchildren in Taiwan. The quantitative analysis and qualitative interviews of structural equations multi-group analysis were used as the research method in this study. The subjects of this study were 5-7 years old children, including 134 boys and 124 girls. The results showed that the computerized IFAT spatial ability test had good reliability and validity. The spatial ability performance of boys was statistically significantly better than girls. The computerized IFAT provided 5 to 7 years old school children learning motivation interest. The response of the acceptance of both boys and girls using computerized IFAT was respectable. Most of the children accepted the IFAT test style because it allowed children to answer the questions until they get the correct answer (Answer-Until-Correct). This helped them reduce the anxiety from failing the questions.

## Saturday Session I: 09:00-10:15

Room: *To be Announced in Final Schedule*

Session Topic: Learning Experiences: Biology

Session Chair: *To be Announced in Final Schedule*

**52929**

### **Exploring the Use of Project-based Learning in Grade 10 Biology 1**

Gina Basmayor, Bicol University, Philippines

The diversity of learners created a challenge in science education in terms of its strategies and styles. One learning strategy that is gaining spotlight today is the Project- Based Learning which has its root on constructivism. It has increasingly been trialed and adopted across a diversity of educational institutions worldwide. The intent of this study is to explore the use of this learning strategy that may help educators to be more knowledgeable in implementing it inside the classroom. It aimed to develop lessons with the features such as alignment to K-12 learning competencies, active learning, contextualization, cooperative learning and use of higher-order thinking skills. Also, the processes and products developed by the students were presented. Quanti-Qualitative method was used in analyzing the data- qualitative was used in determining the process and product developed by students and students' response on the journal entries and focus group discussion and the quantitative was done through pre-experimental design – one group pretest-posttest. Five features were fused in the lessons developed using Project-Based Learning for Grade 10 Biology which were implemented to a group of Grade 10 student of San Lorenzo National High School, Philippines to determine the processes and products that the students developed and the competencies manifested by students in terms of knowledge, process skills and attitudes and values. Results revealed that there is an increase on the performance level of the students after being exposed to Project-Based Learning. Also, the students manifested process skills and positive attitudes towards Biology.

**52407**

### **Instructional Message Design-guided Biology Teaching: Effects on Students' Creativity and Cognitive Resource Expenditure**

Tristan Orbeta, University of the Philippines, Philippines

Rosanelia Yangco, University of the Philippines, Philippines

The main thrust of the study was to examine the effects of Instructional Message Design-guided Biology Teaching on students' creativity and cognitive resource expenditure (CRE). It utilized the quasi-experimental approach adopting the repeated measures, factorial design. A total of sixty-one Grade 11 senior high school students from two comparable intact sections were involved in the study. The Torrance Tests of Creative Thinking (TTCT) were administered as pretest and posttest to assess students' creativity. The Cognitive Resource Expenditure Scale (CRES) was given after each session within the duration of the intervention to measure CRE. A one-way ANCOVA showed that IMD-guided Biology Teaching was effective in enhancing students' creativity while a mixed between-within ANOVA indicated that the intervention was effective in lowering CRE. Pearson's correlation analysis confirmed a negative relationship between creativity and CRE. Qualitative data were also gathered to support the results derived from statistical tests. Based on the findings, it is imperative that educators apply the IMD principles when planning and carrying out instruction, primarily considering the cognitive ability and processing of learners.

**52930****Lessons in Grade 10 Biology Using Cooperative and Guided-inquiry Approach**

Sally Dadea, Bicol University Graduate School, Philippines

This descriptive developmental research study determined the effect of the developed lessons in Biology using Cooperative and Guided Inquiry Approach for Grade 10 students of Barangay High School in Manito Albay. Specifically, it sought answers to the questions: (1) What lessons may be developed for Grade 10 Biology with the features: cooperative learning, guided inquiry learning and use of authentic assessment; (2) What is the effect of the developed lessons in enhancing student's conceptual understanding and attitude towards Biology; and (3) What are the significant experiences of the students during the implementation of the developed lessons? The researcher employed pre-experimental research design and utilized qualitative and quantitative techniques in the analysis of data. Quantitative data were gathered through the use of the pre-test post-test results on conceptual understanding and attitude survey responses of the students. While qualitative data were gathered from the students written outputs, students journals and focus group discussion (FGD). The results showed a significant increase in the pretest and post test of the respondents conceptual understanding and overall positive attitude towards Biology after using the 8 developed lessons. The 8 developed lessons helped the students with the topics initially perceived as difficult evident in the positive mean gain scores of the respondents pre and post test results. Using the cooperative and guided inquiry approach in teaching, the students learned to value team work; developed their leadership skills; and helped them to manage their time smartly. They also learned the art and significance of cooperation, patience, responsibility and cooperation.



## Saturday Session II: 10:30-12:10

Room: *To be Announced in Final Schedule*

Session Topic: High School Education

Session Chair: *To be Announced in Final Schedule*

**53622**

### **Curriculum Metamorphosis: Lived Experience of Senior High School Students of Letran Calamba Under K to 12**

Glenda Lizardo, Colegio de San Juan de Letran Calamba, Philippines

The study focused on the lived experience of senior high school students of Colegio de San Juan de Letran Calamba from S.Y. 2016 to 2018. The objectives of the study were 1) to identify the lived experience in terms of demands and challenges from the perspective of selected senior high school students; and 2) to analyze how they cope with the demands and challenges that contribute to their lived experience. Focus group discussion among the eight participants from the different strands, bracketing, horizontalization, thematic analysis, and interpretative phenomenological analysis were employed during the conduct of the study. Results revealed that senior high school students of the Colegio treated K to 12 as an avenue for training and preparation that allowed them to think deliberately before entering college and helped them discover their potentials and capabilities for future endeavors. However, some of the participants look at K to 12 as demanding and challenging in terms of expenses and pressures from choosing the right strand. Nonetheless, they also feel fortunate with the help of R.A. 7722 which allows students to choose any course regardless of the strand taken in Senior High School. The problems pointed out were teachers' deficiencies and paralleled expertise, overwhelming performance tasks and the multiple deadlines which contributed to their academic stress and learning process. It was noted that teamwork played a major role during their stay in the Colegio. Overall, the participants call to revisit and further improve the curriculum for the next generation.

**53360**

### **Beliefs and Practices in the Implementation of Performance Tasks (PETAs): Basis for the Development of Enhancement Program**

Shiela Marie Masaoay, University of Santo Tomas, Philippines

Rodrigo Litao, University of Santo Tomas, Philippines

One of the components of the summative assessment for senior high school students as stated in DO No.8, s. 2015 is the Performance Tasks (PETAs), which allow learners to demonstrate what they have learned in diverse ways. Using Constructivist Learning Theory and Zone of Proximal Development and explanatory sequential mixed methods design, this study mainly aimed to ascertain the relationship of the respondents' profile with their beliefs and practices in the implementation of PETAs. It likewise explored their insights regarding their experiences in the use of the said assessment. Respondents included 300 senior high school teachers. Using self-made questionnaires that underwent validity and reliability tests, and statistical treatments results indicated no significant difference in the beliefs and practices of the respondents according to their profile and a significant positive correlation between age and to their beliefs and practices. There is also a significant positive correlation between years of teaching and to their beliefs. However, there is no significant positive correlation between years of service to their practices. Results likewise showed that the respondents' difficulties in implementing PETAs included too many class interruptions due to meetings, compliance with reports, and trainings. Using constant comparative method and induction to theme development, the semi-structured interviews, revealed three recurring themes -- PETAs as real-life application of learning, PETAs as being difficult to assess, and PETAs as causing difficulty in time

management. Implications of the findings, including the need for enhancement program on the proper implementation and management of PETAs, are put forward.

**51970**

**Developing an Administration Model for Effective Governance of Standalone Senior High Schools**

Mildred Jimenez, University of the East, Manila, Philippines

In any organization, change is always constant and inevitable. Whether one is ready to accept it or not, it needs to be given proper attention. In the Philippines, a major change in different sectors transpired after the government's adoption and implementation of the K to 12 Program in 2012. Stakeholders in the education sector needed to adjust to the total overhaul that it brought about to the system. Interestingly, it is clearly evident that many of the SHS Principals are still on the process of understanding and mastering their new roles in a relatively new position, whether they have an experience of being school heads in Junior High School or not. This study seeks to identify the challenges which Standalone SHS Principals face. Then it will try to determine how those challenges are addressed so that an effective administration model can be developed for Standalone SHS. A mixed method approach will be employed using a quali-quantitative design where out of twenty-nine Standalone SHS Principals in NCR, seven will be initially interviewed. The responses from the interview will be utilized to construct a questionnaire which will then be answered by the remaining twenty-two principals to validate the findings in the qualitative phase. Also, the perception of teachers, parents, students, local government units, and the industry regarding the results of the interview will also be gathered. It is with hope that the results of this study will be helpful for Standalone SHS Principals in addressing whatever issues they may be facing.

**53806**

**Challenges and Opportunities of the Senior High School Program in the Philippines**

Josephine Dumrique, Department of Education, Philippines

The Philippines implemented in 2016 the Senior High School curriculum with the aim to better prepare students to pursue higher education through its academic track or equip them with skill sets under the livelihood-vocational track or to hone their artistic talents under the arts and designs tracks. Within its three years of implementation, however, discussions still continue whether it is really achieving its purpose or it is simply an additional financial burden to parents of senior high school students and additional years of study on the part of the students. Adding to the issues is the readiness of facilities and effectiveness of teachers in the Senior High School with many of them coming from the tertiary level where their years of teaching were more for college students whose learning adaptation and abilities are far different from high school students. Central to this study is the implementation of the Senior High School Program in the Philippines by looking closely to the experience of the Schools Division of Tarlac Province and identification of the strengths, weaknesses, opportunities and threats by school heads that can positively contribute to the improvement of the program as a whole, among others.

## Saturday Session II: 10:30-12:10

Room: *To be Announced in Final Schedule*

Session Topic: Professional Training - Communities of Learning

Session Chair: *To be Announced in Final Schedule*

**53966**

### **Developing School-based Gifted Curriculum Through Professional Learning Community: A Case Study of a Junior High School in Taipei**

Chiao-Wen Wu, National Taiwan Normal University, Taiwan

It is increasingly acknowledged by researchers across the world that professional learning community is a good means of school improvement. The Taiwanese ministry of education and local authorities have been promoting the idea and practices among various levels of schooling since the mid-2000s. Both school-based and cross-school professional learning communities are in practice in the Taiwanese context. This study aims at offering a case study of a school-based professional learning community with 5 members in a junior high school in Taipei. Initiated and facilitated by the researcher, this professional learning community focuses on developing a school-based English Talent program for language gifted students. Taking the action research approach, all teachers have to implement this school-based curriculum. Members of this professional learning community are going to observe each other's lesson and then discuss how the teacher teach and how the students learn. With the findings from action research, this school-based curriculum will be revised to offer better learning for future gifted students. Data are collected from mid-2017 onwards. The experience of this professional learning community can offer an interesting case to the international audience regarding the development of a professional learning community in the Taiwanese context. The Taiwanese case might serve as a start for future international comparative study.

**53448**

### **Empowering Teachers in the Philippines through Learning Action Cells**

Xerxes de Castro, Assessment, Curriculum and Technology Research Centre, Philippines

Marie Therese Angeline Bustos, Assessment, Curriculum and Technology Research Centre, Philippines

In the Philippines, trainings from the national to regional, division, district, and school levels are usually delivered in top-down or cascade processes. Recognizing the need for more cost-effective and continuous professional development opportunities for teachers, the conduct of school-based Learning Action Cells (LACs) was institutionalized in the Department of Education in 2016. It serves as a learning community of and for teachers to help improve their practice. In 2014, the Assessment Curriculum and Technology Research Centre (ACTRC) served as a verification agent for the World Bank-funded Learning, Equity and Accountability Program Support (LEAPS) Project. It tracked the training of school heads and Grades 1 to 3 teachers on Early Language, Literacy and Numeracy (ELLN) in five regions between 2015-2018. Teachers expressed an overall appreciation of the ELLN program delivered through LAC. Because it operated in a safe and familiar environment for teachers, they were able to freely communicate problems in their school that required immediate solutions, identify specific teaching difficulties, develop and prioritize interventions to address recognized issues, exchange and brainstorm ideas together, and plan all other activities that would support math and literacy instruction. LAC allowed schools to function independently in solving their urgent concerns and developing expertise within their pool. The interdependence that teachers had formed among each other nurtured their skills and fostered mutual support. Through the LAC, teaching practices and student learning improved upon application of newly acquired strategies in the classroom.

**53313****Establishing a Community of Practice in a Preservice Mathematics Organization**

Stephen Raymund Jinon, Paref Westbridge School Inc., Philippines

This Participatory Action Research helped in addressing the gaps of preservice teachers by establishing a Community of Practice (CoP) in a preservice mathematics education organization, that mirrors the CoP of professional teachers' organization in some mathematics organization in the Philippines. The elements of CoP, social learning theory, and the negotiated-order theory guided the researchers on their established practices. Qualitative evidences were gathered from a purposively chosen co-participants of the study to ascertain how these preservice teachers collaborately develop practices to move forward from status quo. The preservice teacher's encountered gaps on their pedagogical practices as well as on some aspects of their domain and community. They worked together in addressing these gaps by establishing the community called Circle of Mathematicians-Teacher of Progress (COM-TOP) and their practices called LDCIT (Lesson Planning, Demonstration Teaching, Classroom management, Instructional Materials, and Trends on research). The SET (Sense-Enforce-Transmit) cycle helped them in achieving their goals. As they continuously established their identity and improve their processes, their practices had improved, and the transmission of ideas became more systematic. This study showed that an organization can be a community of practice that could help preservice mathematics teachers prepare for the challenges of teaching profession through collaboration. This will further prepare them in the challenges of the new K-12 mathematics curriculum. This will not only apply to the preservice mathematics teachers but also to those group of preservice teachers who have higher hopes of improving the quality of education in the Philippines.

**52330****Forming Ecologies of Practice: How a Distributed Facilitator Framework (DFF) Scaffolds Teacher and Student Partnerships in Career Development Learning (CDL)**

Arianne Rourke, University of New South Wales, Australia

Kim Snepvangers, University of New South Wales, Australia

This paper discusses a project where students and educators worked iteratively in collaborative reciprocal relationships to enhance International student experiences in higher education. Here disciplinary knowledge and appropriate pedagogies are inextricably linked, emergent and meaningful, demonstrated through carefully articulated creative encounters. The Teaching International Student (TIS) Project was planned within in a Distributed Facilitator Framework (DFF) that encompasses activities, events, resources, 'Student as partners' projects and a growing independent Community of Practice (CoP). The theories that underpin the DFF model, includes the Iceberg Model of surface and deep culture (Kruger, 2013) and the 'Ecologies of Practice' concepts of Kemmis and Heikkinen (2011) and Snepvangers & Rourke (2017). The DFF was created to visually capture an interconnected series of processes and events that utilised the Kemmis et al's (2011) characteristics of 'sayings, doings and relatings'. An Action Practitioner Research methodology was developed over a one-year cycle that includes follow-up reflective practice activities. The project has been evaluated utilising high-level positive educator-led evidence that does not rely on one-off surveys and instead explores other ways of longitudinally capturing qualitative data that takes into account the iterative nature of learning and teaching. Evidence of shifts in practice through pre and post reflection survey data within and outside each activity and event is a key focus of the evaluative process. The outcome demonstrates ways of capturing and disseminating holistically new Career Development Learning (CDL) in professional educator practice through showcasing, evaluating and the adaption of good practice in a variety of disciplinary contexts.

## Saturday Session II: 10:30-12:10

Room: *To be Announced in Final Schedule*

Session Topic: Language & Cultural Identity

Session Chair: *To be Announced in Final Schedule*

**54109**

### **Derivation of Reduplication, Iteration and Repetition in Filipino**

Nina Lilia Javier, Bulacan State University, Philippines

This paper features the derivational nature of reduplication, iteration, and repetition of morphemes in Filipino. This study will also cover the derivation of morphologies of Filipino language that aims to be applied in teaching practices. Derivation plays a productive role in the Filipino language particularly in the formation of new words and meanings from an existing word. With the use of derivation, the modification of a certain word results not only to the formation of new meaning but also creates an alteration to the lexical category. This is a qualitative research on derivation of Filipino. The data for the analysis were adopted from written and oral corpus in usual conversations in media such as commercials and news. This study sheds light to the following topics: (1) reduplication or repeated first syllable, (2) iteration or repeated first two syllables and (3) repetition or repeated the entire morphemes. Reduplication, iteration and repetition are divided according to its lexical category of its morphemes. These are: (a) morphological derivation, when the lexical categories of words are changed (b) semantic derivation, where in its lexical categories did not change but the meaning had changed.

**54458**

### **The Relationship Between Chinese Language Learners' Cultural Identity and Their Study of Chinese as a Foreign Language**

Ji Yitian, Jiangsu Second Normal University, China

Over the two decades, learning Chinese as a foreign language has become more and more popular all over the world. A mounting number of countries have set up Chinese language courses and an increasing number of overseas students have come to China to learn Chinese as well. Inevitably, students are exposed to Chinese culture in the process of learning Chinese. This literature review therefore synthesizes research that has empirically examined factors related to the relationship between cultural identity and learning Chinese as a foreign language. Their relationship is discussed with reference to three main themes: (a) whether language learning enhances cultural identity; (b) whether cultural identity motivates language learning; and (c) whether language learning and cultural identity are intertwined and increase or decrease together. The findings suggest that learning Chinese as a foreign language has positive effect on learners' identity of Chinese culture, and in turn, the more learners integrate into Chinese culture, the higher level proficiency of Chinese they obtain. Overall, learning Chinese and learners' identity of Chinese culture are mutually promoted. However, future research is needed to investigate learners who study Chinese at different age groups, and determine whether the relationship between the two concepts would alter.

**54014**

### **The Benefits and Challenges of Intergenerational Minority Language Transmission Amongst Korean Migrant Families in New Zealand**

Jean Kim, Sonoda Women's University, Japan

In line with current trends of globalisation people tend to migrate to a country other than their home country. Previous research suggests the importance of majority language acquisition as a key element to integrate into mainstream society. In contrast, former research shows that bi-/multilingual speakers bring social and

economic benefits for mainstream society and being bi-/multilingual enhances sense of belonging to a majority society. Such contradictory messages may create dilemmas for migrant families in their minority language transmission across generations. A New Zealand study demonstrated that Korean migrant families reported 83% of intergenerational Korean language transmission when living in New Zealand (King & Cunningham, 2016). The present study aims to explore the benefits and challenges of being bilingual speakers of minority and majority languages when living in a monolingual-focused New Zealand. Interviews were conducted with 11 Korean migrant parents and 12 of their New Zealand-born children aged from 16 to early 20s in their experiences and feelings about language choices, practices and their consequences. Findings show that an ability to speak both minority and majority languages helps the children to develop a hyphenated identity; Korean-New Zealander, that facilitates social acceptance within both minority and majority society. Such acceptance leads to the power that comes from belonging. However, a lack of multilingual awareness amongst the majority society may hinder minority language transmission in migrant families.

**53708**

**Past, Present and Future of Multilingual Education Policy in Central Asia: is Mother Tongue Education still the right?**

Kuanysh Tastanbekova, University of Tsukuba, Japan

In the age of intensifying competition for limited resources educating multilingual citizens has become one of the most important issues of language education policies around the world. However, pursuing political, social and economic stability within a given country requires governments to consider not only global challenges but national interests and local needs as well. Language education policy in five Central Asian states of Uzbekistan, Kazakhstan, Kyrgyz Republic, Tajikistan and Turkmenistan sparks scholarly interest as these countries represent extreme ethnic and linguistic diversity and share common Soviet past with its policy of “Russification” as one of the reasons for pushing the policy for acquisition of dominant ethnic language in the first decade after independence. Since then language education policy in all five republics is challenged by finding a balance between national language, Russian and English. Yet the presence of mother tongue education of non-dominant ethnic minorities remains rather rhetoric than practical. The purpose of this presentation is to examine the transformation of the basic principles for language education policy in five republics by applying the concepts of “procedural and distributive justice”(Hossain and Pratt, 2008). It examines language education policies with a focus on concepts of right to education in/of mother tongue, right to education in/of a dominant language, and right to education of foreign language in their historical retrospective, contemporary condition, and future perspectives. This research argues that right to mother tongue education deteriorated both procedurally and in the distribution in all five republics.



## Saturday Session II: 10:30-12:10

Room: *To be Announced in Final Schedule*

Session Topic: School Leadership

Session Chair: *To be Announced in Final Schedule*

### 53355

#### **The Role of Authentic Leadership and Teachers' Organizational Commitment on Organizational Citizenship Behavior in Higher Education**

Ma. Celia Roncesvalles, University of Santo Tomas, Philippines

Amelita Gaerlan, University of Santo Tomas, Philippines

Nowadays, the success of schools relies predominantly on the leadership styles of school leaders and the teachers' behaviors toward work. Despite the evidence showing that authentic leadership can effectively operate in an increasingly complicated environment, limited studies have focused on their impact on educational organizations. The purpose of this research is to examine the significant effects of authentic leadership possessed by school leaders on teachers' organizational commitment and organizational citizenship behavior in higher education institutions. This study aims to construct a behavioral performance model that could guide school leaders to attract and retain competent faculty members and provides some insights on the importance of authentic leadership in an academic environment. This quantitative study employed multiple regression analysis to assess the relationship of the deans' authentic leadership on the organizational commitment and organizational citizenship behavior of the 150 college teacher respondents. The results of the study show that authentic leadership is significantly correlated with the organizational commitment and organizational citizenship behavior in educational organizations. The study found that the authentic leadership of the deans positively affects the teachers' organizational commitment and organizational citizenship behavior in higher education.

### 52965

#### **Principals' Task Effectiveness and Student Achievement: Perceptions of Principals, Deputy Principals and Lead Teachers**

Waseema Fikuree, The University of Auckland, New Zealand

Frauke Meyer, The University of Auckland, New Zealand

Mohamed Alansari, The University of Auckland, New Zealand

Deidre Le Fevre, The University of Auckland, New Zealand

Although the relations between general educational leadership practices and student achievement have been well-researched, little is known about the specific relations between principals' effectiveness in specific tasks and student achievement. The purpose of this research was to explore principal task effectiveness, as perceived by principals themselves and their senior management teams (SMT). This study identifies specific sets of principal tasks and explores the associations between perceived principal task effectiveness in these task dimensions and student achievement. This study employed an exploratory quantitative design using surveys to collect principal and SMT ratings of principal task effectiveness. Principals and SMT were asked to complete the same survey regarding principal task effectiveness. Survey data and grades from the International General Certificate of Secondary Education (IGCSE) in Mathematics and English as a Second Language were collected from all of the 178 public secondary schools offering the IGCSE in the Maldives. An exploratory factor analysis (EFA) was used to explore principal task dimensions. Hierarchical regressions were used to examine the predictive ability of principal task effectiveness and certain principal characteristics on student achievement. The analysis revealed five leadership task dimensions: School Management, Instructional Management, Teacher Quality, External Relations and Program Development and Evaluation. The Teacher Quality dimension and principals' years of experience in the school positively

predicted student achievement in English as a Second Language. This research highlights the importance of principal task effectiveness and its link to student outcomes. These findings have implications for principals' training and professional development

**52946**

**Teacher Leadership: The Case of Two Schools in Pavlodar**

Bakyt Amirova, Nazarbayev Intellectual School of Chemistry and Biology in Pavlodar, Kazakhstan

The qualitative study focuses on teacher leadership in the context of Pavlodar region. The teachers from rural and urban schools have been interviewed to share their perceptions on teacher leadership. The research identifies teachers' understanding of leadership, factors that contribute to and inhibit teacher leadership. The participants also provide suggestions on how leadership potential can be enhanced at the schools of the region. The data analysis reveals that overall teachers have similar views on what teacher leadership is. All the participants state that teacher leadership is connected with responsibility and dedication towards teaching and learning. The participants show agreement that all teachers are true leaders since teachers are the ones who form young minds, encourage them to think critically and help learners explore the world. The study participants have identified the factors that contribute to teacher leadership. Among internal factors teachers identify professional knowledge, personal qualities and motivation as those that enhance teacher leadership among school educators. External factors, such as a supportive school environment, professional development programs and collaboration with other colleagues also contribute to developing teacher leadership at the school site. The participants also point out the factors that inhibit teacher leadership in schools. Two dominating factors have been identified during the interviews: lack of time-management skills and lack of collaboration. The participants suggest their initiatives that might enhance teacher leadership skills: organizing effective leadership training centers and increase of professional collaboration between rural and urban schools.

**54649**

**The Influence of Principal's Transformational Leadership and Quality of School Learning Environment on Students' Academic Achievement**

Semuel Olayvar, La Consolation University Philippines, Philippines

Alvin Nuqui, La Consolation University Philippines, Philippines

A productive learning environment must first be a place where students can feel safe, physically and emotionally, which a transformational leader manages. It must be a supportive community where kids—and teachers—of all backgrounds can focus on learning. The main concern of the study was to assess the influence of principals' transformational leadership and quality of school learning environment on students' academic achievement. This study made use of descriptive correlational method of research that utilized standard questionnaires as primary data gathering tools, substantiated by extensive documentary analysis. The respondents of the study were teachers and principals of public secondary schools. The results were processed using the Statistical Packages for Social Sciences (SPSS) and the data were presented using appropriate tables and texts. The results were analyzed and interpreted using statistical tests such regression analysis in determining the influence of principals' transformational leadership and quality of school learning environment on students' achievement in English, Math, and Science. Using the aforementioned procedures, the findings of the study revealed that school principals who are good transformational leaders are contributors of best possible leadership outputs that facilitate more students learning and academic achievement likewise would help teachers to become more productive in practicing their teaching professions as committed member of school organization. The very good quality of school learning environment can be a springboard to the achievement of 21st-century classroom experience. The secondary school teachers are effective in motivating the students to learn and imparting knowledge to early childhood learners. Principals' transformational leadership and the quality of school learning environment exert significant influence on the academic achievement of students in English, Math, and Science.



Implications drawn from the findings of the study are good insights that may be used in further improving the quality academic achievement of students in public secondary schools.

## Saturday Session II: 10:30-12:10

Room: *To be Announced in Final Schedule*

Session Topic: Developing Critical Thinking Skills

Session Chair: *To be Announced in Final Schedule*

**52928**

### **Level of Content Knowledge and Critical Thinking Skills of Senior High School STEM Students in Disaster Readiness and Risk Reduction**

Jeannie Rose Hilotin, Bicol University Graduate School, Philippines

Disasters are sudden disruptive events which affect the functioning of a community in utilizing its own resources. This makes disaster readiness and risk reduction a current trend in science teaching to match the needs to the fast-paced advancements which will provide many social benefits. This descriptive research study determined the level of content knowledge and critical thinking skills of Senior High School STEM students in Disaster Readiness and Risk Reduction (DRRR), their notable experiences, values and attitudes developed among the schools in Albay, Philippines based from their political subdivisions and topographical locations. It was concluded that the level of content knowledge of the students in DRRR before the lessons were in low mastery level while urban lowland schools were in near mastery level. For the level of critical thinking skills, all schools were in low mastery level. Students developed a sense of awareness with regards to the DRRR concepts which could be associated with the student's experiences. After the lessons, the level of content knowledge of the students from all schools significantly increased wherein, they were already in the mastery level except the urban lowland schools with full mastery level. The level of critical thinking skills of all the schools significantly increased from low mastery to mastery level. Positive values and attitudes were also developed after the conduct of the lessons. All of these were supported with percentage scores in the tests, ANOVA, Tukey test, Paired T-test, Students' journals, teachers observations and documentation.

**54451**

### **REFLECT: Engaging and Empowering Critical Thinking Through Creative Process Journals**

Joselyn Sim, LASALLE College of the Arts, Singapore

Disruption is not only changing the landscape of businesses and the workforce but also pushing learning and teaching approaches to re-evaluate themselves in order for educators to motivate learners to learn in a digital world. In Singapore's tertiary education, learners have moved from the proponents of STEM to STEAM, where an integration of the arts is embedded in most curricula to develop capabilities which are important to a future-ready workforce. Undergraduates must now possess combined competencies, such as problem-solving, creativity and critical thinking. This paper aimed to propose a practical framework underpinned by propositions of the reflective practitioner championed by Donald Schon, with discussions on how the Creative Process Journal (CPJ) is primed by critical and reflective thinking. Its research method would include looking at case studies and gathering insights from the CPJ, a mandatory Unit Of Assessment (UOA) of the main module of a Bachelor of Arts (Hons) programme in Singapore. For the UOA, students would be assessed if they could successfully analyse design paradigms and practices to develop a critical understanding of contemporary design culture as the learning outcome. The paper also aimed to demonstrate positive results of how its students are able to form iterations of creative output through risk-taking, collaboration and experimentation. The pedagogical approach of this study would then be able to nurture future competencies and support strategies for students in other disciplines to enable the scaffolding of the creative process in order to facilitate critical thinking through critical making.

**52968****Making Business Schools More ‘Critical’ by Teaching Modern Slavery Through Reflexivity**

Lidia Gheorghiu, Aston University, United Kingdom

This article invites breaking the traditional pattern in business schools and encouraging management educators to engage critically with their subjects. Conventional methods give a trusting standard of learning; but, they are significantly better at producing followers than leaders or that they do not cultivate leaders at all. This article proposes taking a step further, by making modern slavery the focus of students’ reflection. Globalisation and the global population explosion lead to the free movement of people. Through their economic migration or economic transformation, people travelled from developing countries and work when prospects for earning decent wages were limited. However, worldwide, circa 40 million people are now victims of modern slavery, mostly trafficked while searching for better jobs, detained in debt bondage, and confined by poverty and discrimination. While presenting concepts from educational philosophies applied to modern slavery, this article creates an affirmative connection between practice and critical thinking. Critical pedagogy translates in opening the learning space, which links a critical outlook to content and to critical methodology. It contains awareness of self and of the world on top of the conventional classrooms knowledge. It equips students with greater sensitivity to the emancipatory and transformational future perspectives. Teaching reflexivity implies no formula; it only involves awareness on how reflexive practice happens while assisting and being open to the process. Its proposed activities where students are required to write reflective notes stimulate reflection and encourage them to create their own meanings.

**54551****Cultivating Critical Thinking in the Classroom: A Case Study**

Nadine Ouellet, LASALLE College of the Arts, Singapore

Academia, industries, and governments agree on the importance and value of critical thinking as a skill for the 21st century and the new knowledge economy. But, how do we cultivate critical thinking in the classroom? A small college classroom has been transformed into a research project and pedagogical lab in which a variety of strategies have been deployed to support and enhance critical thinking. The project focused on the following: creating a nurturing environment in which students felt safe to express themselves, empowering students through the co-design of the curriculum, fostering their independence through self-assessment, and promoting emotional literacy through projects cascading from individual to collective. The first aim of this paper is to argue that critical thinking needs the right environment and framework in order to blossom. The second aim of this paper is to uncover the positive results of our research project in which critical thinking related skills such as analysis, communication, creativity, open-mindedness and problem-solving were cultivated in the classroom through a combination of activities and teaching techniques.

## Saturday Session II: 10:30-12:10

Room: *To be Announced in Final Schedule*

Session Topic: Accessibility &amp; Inclusion

Session Chair: *To be Announced in Final Schedule***53406****Yanyan's Sister and the Pig: Interdependence and Dependence in an Individual Transition to Modernity**

John Lowe, University of Nottingham Ningbo China, China

Yanyan is a pseudonym for a female Chinese university student from a large and impoverished rural family. This paper, based on a single, long narrative interview and some follow-up material, describes a key part of Yanyan's journey from this severely disadvantaged background to the successful completion of a university degree and entry into modern-sector employment. It would be possible to tell her story as one of independent individual achievement based on strategic decision-making and the strength of her own personality. Indeed, the paper identifies – but does not dwell on – threads in Yanyan's story that fit comfortably with Rational Action Theory, beloved of classical economists with their emphasis on the individual actor as an independent agent. The focus of this paper, however, is on how this apparently independent life management process is actually only made possible by a bedrock of familial and cultural dependence and interdependence that Yanyan portrays as essential to her – and her sisters' – success. Furthermore, not only does her individual success depend on this foundation of interdependence, it simply does not make sense – in Yanyan's mind – to refer to her as being 'independent'. While recognizing the limitations of the approach, the paper uses notions of 'tradition' and 'modernity' as convenient 'theoretical shorthand' for Yanyan's biographical trajectory in order to critique simplistic dichotomies that portray individual independence as a characteristic of the modern individual emerging from a break with interdependencies of the traditional. The paper also provides a commentary on experiences of inter-cultural qualitative research.

**54129****Exploring Education Accessibility and Inclusion for the Underprivileged via Blockchain Technology**

Andrei O. J. Kwok, Sunway University Business School, Malaysia

The advent of blockchain technology could challenge the existing paradigms and significantly impact education. Blockchain technology provides efficient data management, security, and authentication of information digitally for all types of record (e.g., certification, assignment, fees payment, and credit transfer) on a publicly distributed ledger. Preliminary findings show that blockchain technology could contribute to the education of the underprivileged, unschooled, and under-schooled in three fundamental areas. First, educators and students can chart their credentials without having an institution as an intermediary. Their proof of work or smart contract is cryptographically signed to allow validation by multiple collaborating parties, specifically employers. Second, formal and informal massive open online courses can reach geographically dispersed individuals effectively at a significantly reduced cost while ascertaining the trustworthiness of the provider, student attainment, and accreditation. Third, the far-reaching and wide-ranging solutions offered by blockchain technology could overcome cost, infrastructural, and institutional barriers in less developed countries. Therefore, the underprivileged, unschooled, and under-schooled can have better access to education, addressing poverty and low literacy rate. Literature review shows that while blockchain technology enables the pervasiveness, quantum and velocity of teaching and learning, research on blockchain for education is nascent. It remains to be seen how exactly the implementation of blockchain technology will exploit the potential benefits highlighted, and how the corresponding barriers can be overcome. With interest of blockchain rising rapidly across all other industries,

the aim is to encourage researchers, educators, and policy-makers to examine the potential and value of blockchain technology in education.

**53363**

**Dependence, Independence and Interdependence: Dynamics and Issues for Counseling and Female Self-education in Relationship**

Elizabeth Kristi Poerwandari, Universitas Indonesia, Indonesia

This paper departs from a reflection on the cases of violence or imbalances of power in relationships, particularly those involving women as victims. It is realized that women's psychology is influenced by body-biological aspects, but is even strongly influenced by social construction related to the meaning-making of the body, sexuality, as well as the positions and roles of women. The theoretical perspectives used are the psychology of women perspectives and eclectic gender psychology, combining psychoanalytic, social learning and humanistic approaches that are exposed to feminist and gender-sensitive values. Data is taken through FGDs to social workers, legal advocates and psychologists who assist, conduct counseling, and / or conduct psychological examinations on victims for the benefit of legal processes. They are the ones which so far has been directly faced with victims and can reflect on their situation and psychological dynamics. The research findings show that women experience confusion balancing dependencies, independence and interdependence to arrive at healthy independence and interdependence. This can have an impact on the trapping of women in manipulative or violent relationships, often as victims. In certain cases, there can be a mistake, or a woman becomes a perpetrator. The findings are relevant to understanding women and their relations in a more general context that is not always violent. The findings are also important to be the basis of self-education and counseling for women to enter into healthier and more empowering relationships.

**52816**

**Being, Becoming, Belonging: The Development of Higher Education Institutional Policy for Inclusion**

Michelle Somerton, Nazarbayev University, Kazakhstan

Nazarbayev University was established in 2010 by the first President and is tasked with the mission of being a model for higher education reform and modern research in Kazakhstan. The university's first strategic goal is to ensure the lessons of Nazarbayev University's experiences are transferred and understood by other universities, schools, and research centers. As Kazakhstan has signed international agreements on inclusive education such as the Salamanca Statement (UNESCO, 1994) and Education for All (UNESCO, 2004), the burden has been placed on a range of stakeholders at all levels of education, to meet the country's international obligations. Not only is Kazakhstan placed between Asia and Europe resulting in competing paradigms of understanding and definitions of inclusive education, there is confusion between historical and contemporary definitions of inclusive education leading to the fragmentation of reforms. This paper will discuss the process of developing institutional policy that addresses contemporary understandings of inclusive education and is the first of its kind in this context and others. The research includes the construction of a campus climate questionnaire developed in partnership with the student population and between schools and faculty. The questionnaire explores the attitudes and experiences of undergraduate and post-graduate students based on gender, disability, religion, ethnicity, sexuality, and socio-economic status. At present, pilot study data is available with preliminary data available on the full study in early October, 2019. This research highlights some of the opportunities and challenges faced by higher education institutions in transforming and creating a more inclusive educational landscape.

## Saturday Session II: 10:30-12:10

Room: *To be Announced in Final Schedule*

Session Topic: Student Perceptions

Session Chair: *To be Announced in Final Schedule*

**53172**

### **English Majors' Perceptions of Group Work and English Use in Group Activities**

Hung Do, Dong Thap University, Vietnam

Long Le, Dong Thap University, Vietnam

Pair or group work is now widely applied in virtually all types of classroom and it is one of the prominent features of the learner-centered approach and the communicative method in EFL classes. This study aimed to investigate English majors' perceptions toward (1) group work, (2) English use in group activities, and (3) given suggestions for English speaking deployment. The data were collected via a questionnaire from 150 third/fourth-year English majors, Dong Thap University and interviews with 10 target students who had answered the questionnaire and agreed to partake in the interview. The obtained results show that most students highly appreciated the significance of group activities and English use in group work. They also confirmed that Vietnamese speaking is still dominant in practice, and largely agreed on several given suggestions to maximize generic benefits and other language learning merits produced by group work. Accordingly, the current study strongly advocates English use as much as possible in group activities performed by English majors.

**54399**

### **Swimming in an Ocean of Facts and Nonfacts – How High Schoolers Validate Information**

Md. Mahmud Hussain, Khulna University, Bangladesh

Md. Alamgir Hossain, University of Dhaka, Bangladesh

Bangladesh, as well as the global community, continue to experience weaponization of information. Information, rapidly diffused through outlets like Facebook, was weaponized to orchestrate mob lynching and other heinous crimes. In the first seven months of 2019 alone, Bangladesh witnessed 43 killings that had resulted from disinformation. This ghastly phenomenon calls for better understanding the mechanism of how information is being validated by individuals nowadays. This qualitative study aimed to explore the insights and experiences of high schoolers on how they process consumption of information, especially the process by which they validate information. Data were collected from eight conveniently sampled high schoolers — two female and two male eighth-graders, and two female and two male ninth-graders — using semi-structured interviews. The analysis shows that the students are knowledgeable about reputable and renowned sources of information. They are also aware about false news, and jargons like clickbait and viral advertising. When consuming information, the students validate them by the reputability of the person who is sharing the news, the reputability of the outlet the news is being released from, the qualitative nature of the news, as well as the presentation of the news. For word of mouth, the students rely on senior family members and relatives for validation. Apart from Facebook and YouTube, they also use frequency modulation (FM) radio and both online and offline newspapers. The students opine that elderly persons are more prone to believing the false news online as they are uninformed about technologies like Photoshopping and deepfake.

**53111**

### **Implementing the Multiple Teaching Strategies in Mechanical Mechanics Teaching to Improve Students Learning Motivate: An Action Research**

Chih-Yuan Lee, National Taipei University of Technology, Taiwan

Shu-Hui Tseng, National Taipei University of Technology, Taiwan

Students from industrial and vocational senior high schools in Taiwan usually are not interested in school learning. In order to raise their interest, teachers are trying different teaching method. The purpose of this study is to explore whether changing teaching methods can improve students' learning effectiveness and engagement. Different from the traditional teaching method, this study uses multiple teaching strategies like learning sheet, group discussion, question and answer method, and other teaching strategies. Students' learning status are monitored at any time during the teaching process. The result shows that teachers can effectively increase students' interest in learning and improve the learning effectiveness by using multiple teaching strategies. With learning sheets, students can easily focus on the content. With group discussion activities conduct in class, students are more confident to express their thoughts and share them with each other. With question and answer method, students can easily identify the questions that they are confused. This study also found that students are more willing to answer the questions on the midterm exams paper. However, multiple teaching strategies will require teachers to spend more time preparing for the teaching materials, and the course syllabus must be revised in line with the learning status of students.

**53173**

**Python Programming as a General Education Course: Students' Background, Perception, and Performance**

Tsung-Che Chiang, National Taiwan Normal University, Taiwan

Computer programming education has received a lot of attention in recent years. In many countries, computer programming has been introduced in the official curriculum of different levels of education. This paper is an experience report on a programming course in a university in <> (hidden for double-blind review). The course is a general education course and teaches how to write Python programs for data analysis. First, the course design, including topics, schedules, teaching methods, course activities, platforms, exam tasks, and grading criteria, are described. Then, data collected from two classes, one class in the fall and spring semesters during 2018-2019, are presented and analyzed. The data were collected through one programming pre-test, several questionnaires, and students' work (exercises, mid-term exam, and term projects). Relationship between students' background (e.g. gender, colleges, prior experience, etc.), perception, and performance (e.g. exam scores) is studied. Based on the results, we confirm some findings in the literature and make some interesting observations: (1) genders, colleges, and prior experience have strong relationship with students' performance; (2) the frequency of talking about programming in daily lives could be a successful predictor of students' performance; (3) peer support could be a positive factor for learning programming. We also present students' feedback on the course and difficulties that student would encounter during learning programming. Since most studies on non-computer-science-major programming education were conducted in western countries, this study aims to be a useful reference for teachers in Asian countries.



## Saturday Session II: 10:30-12:10

Room: *To be Announced in Final Schedule*

Session Topic: Internationalisation of Education

Session Chair: *To be Announced in Final Schedule*

**53296**

### **Strategies and Characters for the Internationalization of Higher Education in China: Base on the Cases Analysis of Three Universities in Shanghai**

Wenjie Liu, Beihang University, China

In order to achieve the "Double First-Class" initiative, China has been active in pursuing internationalization of higher education. Through interviews with department heads of three world-class universities (one comprehensive university, one humanities and social science characteristic university and one science and engineering characteristic university) in Shanghai. We have found that the three universities are all involved in internationalization of higher education, including teacher-student mobility, institution cooperation, reforming student training models, etc. However, the understanding of internationalization of higher education in each university is different, which also highlights the heterogeneity of internationalization of higher education. University A pursues international cooperation and exchange activities. Through the Confucius Institute, the university sends plenty of teachers abroad. At the same time, the university adopts the model of "who invited who manages" strategy. University B pursues for internationalized from the perspective of a world-class university. The current student training program is mainly the joint cultivation of doctoral students in University B and the ENS Group. University C encourages outstanding students go abroad while attracting merit students come in, such as cooperating with partner institutions. Also, in order to better communicate internationally, the university has rearranged the term time. This study helps the institutions of higher education adopt themselves with the changes of time and the current needs of society. These conditions change the structures and universities' manpower. They also promote the quality of higher education and produce active students.

**54401**

### **Impression of Japanese Universities's Specialized Courses Among Chinese Overseas Students: The Outcome of a PAC Analysis**

Wanxin Yan, Tohoku University, Japan

Taira Nakajima, Tohoku University, Japan

This paper aims at revealing the impressions of Japanese universities' specialized courses among Chinese overseas students and showing some viewpoints in international education support. It is processed by 3 Chinese students' interview and investigated by PAC analysis. In the result, clear explanation, collaborative learning with Japanese students, relaxing class atmosphere, teachers' respectful attitude towards student, qualified language skill and adequate professional knowledge are suggested as being important class elements among Chinese overseas students. Moreover, the author discusses some viewpoints for the education support on Chinese overseas students in Japan, such as the professional Japanese language learning support, the professional report writing support, the construction of Japanese teachers' reliability, the improvement of positive participation among Japanese student, and the development of smooth international communication.

**53072**

### **International Online Exchange Program to Promote Cultural Responsiveness in Teaching**

Bahia Braktia, Sam Houston State University, United States

Andrey Koptelov, Sam Houston State University, United States



Vera Rozhina, Vyatka State University, Russia

Fouzi Belalia Douma, Higher Arab Institute of Translation, Algeria

Ana Marcela Montenegro Sanchez, Sam Houston State University, United States

As the world becomes a global village and educational institutions become more culturally diverse, teachers and students must understand each other to reach an optimum level of learning. It is crucial to grasp the different cultural differences each person brings into the classrooms to effectively provide more culturally responsive instructions that suit students' needs and learning expectations. However, to achieve full understanding, it requires more than language proficiency, as sociocultural differences present a bigger challenge for students and teachers alike. This study took part among two teacher preparation programs in Russia and the United States and an English language program in Algeria. The purpose of this research was to elicit the attitudes, beliefs and perceptions of preservice teachers towards teaching students from culturally diverse backgrounds. The Cultural Diversity Awareness Inventory (Henry, 1991) was administered to 140 participants from the three countries. This study also sought to give the participants the chance to interact with students who were culturally different from them. The participants followed The ABC's of Cultural Understanding and Communication Model to communicate with other students. Results revealed cultural responsiveness varied from a country to another. Findings also showed that participants benefited from The ABC's of Cultural Understanding and Communication Model (Finkbeiner & Schmidt, 2006) as it allowed them to examine their own beliefs and explore other people's perceptions of education, family, culture and beliefs. This project offered preservice teachers the opportunity to develop a multicultural mindset to address the needs of students from different cultural backgrounds.

**53392**

**Choosing to Learn Outside the Classroom: Rural South African Students' Motivation and Benefits of Participating in Voluntary International Virtual Exchanges**

Diana Breshears, University of the Free State, South Africa

Rentia du Plessis, University of the Free State, South Africa

In recent years, many universities have adopted virtual learning initiatives to promote intercultural competencies, language acquisition, and global citizenship among students. Virtual exchange is praised as a way to provide international experiences to students who do not have the means to travel and/or study abroad. Current literature on virtual exchange programs largely focus on the experiences of and impact on Western students, with little attention on the developing countries that participate in these programs. The purpose of this pilot study is to provide rural South African students' motivations and perceptions of their experiences with virtual exchange with a large midwestern university in the USA. 47 students at the University of the Free State Qwaqwa campus took part in four virtual online connections with the American students over the course of two months. Unlike the majority of virtual exchange programs represented in extant research, students participated in the program voluntarily as a virtual "club" rather than as part of their prescriptive coursework. Through a focus group interview with 17 of the students at the conclusion of the interactions, we explored their motivations for taking part in the program, as well as their perceived benefits of participation. Students were overwhelmingly positive about their experience and identified three types of advantages for participation: relationship building, professional development, and personal growth. Students stressed that turning the program into a compulsory activity would result in it losing value to them. Implications of findings for future virtual interactions will be discussed.

## Saturday Session II: 10:30-12:10

Room: *To be Announced in Final Schedule*

Session Topic: Interdisciplinary Education: Curriculum Design

Session Chair: *To be Announced in Final Schedule*

### 53403

#### **Interdisciplinary Learning in STEM Education – The Case of the U-STEMist Scheme**

Siu Shu Eddie Lam, The Hong Kong Polytechnic University, Hong Kong

Wing Sze Betsy Yip, The Hong Kong Polytechnic University, Hong Kong

STEM (Science, Technology, Engineering, Mathematics) education emphasizes on the interdisciplinary learning process, which can be divided into two levels namely (a) interactions between different subject areas to enhance the learning of each other and (b) creation and achievement by students through the learning process. In Hong Kong, STEM was first promoted by the government in 2015. As a pilot project on STEM, the U-STEMist scheme is introduced in 2017. It is a 3-year Teaching & Learning Project jointly conducted by The Education University of Hong Kong, The University of Hong Kong, The Chinese University of Hong Kong and The Hong Kong Polytechnic University. The U-STEMist scheme aims at developing STEM literacy in both pre-service STEM teachers and STEM majors through offering interdisciplinary learning experiences for STEM.

Two repeated rounds of U-STEMist scheme were completed in year 1 and year 2, respectively. Each round comprises lectures, workshops and visits in the first stage, and service projects with communities partners in the second stage. Participants are required to form project group with students from different universities and disciplines, so as to learn from each others. Two groups of students from the U-STEMist scheme will be used as case studies. The impact of cross discipline learning will be illustrated by analyze the groups' learning process and their performance in the scheme. Groups with more students from difference backgrounds and willing to involve in peer learning are found with better results.

### 52353

#### **Developing Multi-disciplinary Learning Experiences and Assessment Rubrics for Building Engineering Project-based Subjects**

Ming Yin Chan, The Hong Kong Polytechnic University, Hong Kong

Rodney Wai-chi Chu, The Hong Polytechnic University, Hong Kong

All engineering degree students in the University shall complete a capstone project in their final stage. It does not only provide an opportunity for integration of their knowledge learned in previous stages, it also serves as a vehicle to integrate their hands-on skills and technical knowledge. The main learning and teaching (L&T) activities of the subject are student-centred with emphasis on "Role Play", "Peer Learning" and "Experiential Learning" in promoting real world design skills and communication for students. In addition, evaluation and assessment of learning outcomes for project-based subject is also a great challenge to facilitators. In alignment with the University strategic goals, the department is committed to nurturing graduates with practical skills that could cope with rapid changes, and be able to design and appraise building services systems in a professional manner. Moreover, using online discussion to enhance learning and teaching activities is also one of the departmental goals. The long term impact of the proposed project is how project-based subjects are implemented and assessed. The experience learned from the subject can be shared with other disciplines and academic departments with similar context so that students can benefit most from project-based learning activities. This project will deal with the activities design and assessment rubrics.

**53304****Driving Purpose: Re-purposing Education Through Future Personas**

Ray O'Brien, Otago Polytechnic, New Zealand

Samuel Mann, Otago Polytechnic, New Zealand

Learning designers need to create future-fit learning experiences that relate to the learners of their global future and their increasing need for a strong sense of purpose as international citizens. For learning designers to re-purpose education so that it is future-fit they need think about learners in a different way. Our education systems are still predominantly focused on the provision of services and qualifications rather than transformational experiences. The existing literature does not adequately deal with the complexity and agility required to design for the future - a future which is driven by a need for purpose in a context of exponential change. In this presentation we describe the use of purpose-driven personas in the development and implementation of a new degree aimed at training change-makers for global impact. We present an evaluation of the use of personas to design learning experiences, based on learner's experiences in the first two years of implementation. Our findings will inform the design of future focused, learner determined educational experiences.

**53384****Becoming Interdisciplinary: Implementation of a Structured Interdisciplinary General Education Curriculum in Hong Kong**

Lisa Lam, Hong Kong Baptist University, Hong Kong

General Education is an integral part of the Hong Kong Baptist University's (HKBU) effort to promote liberal arts and whole person education. HKBU completed a comprehensive review of its general education curriculum in 2017 and the revamped curriculum has just been launched for AY2018/2019. Unlike most university general education curricula, HKBU's new general education curriculum has a structure that consists of three levels of interdisciplinary learning, from foundational courses (Level 1, 3 categories) to courses in thematic areas (Level 2, 3 areas) and a culminating experience (Level 3 Capstone). This presentation will discuss the potentials and challenges that the University faces in implementing a structured interdisciplinary general education curriculum, one that is independently managed by the General Education Office while all interdisciplinary general education courses are being offered by academic departments. It will examine the tensions encountered in the discipline-based undergraduate curriculum, and how such tensions invite discussion and reflections on interdisciplinary general education.

## Saturday Session II: 10:30-12:10

Room: *To be Announced in Final Schedule*

Session Topic: Early Childhood Education

Session Chair: *To be Announced in Final Schedule*

**54468**

### **Study on the Development of the Norm of Fundamental Movement Skills for Children Aged Three to Seven**

Shu Jung Lin, NanHua University, Taiwan

Chia Yen Tsai, National Dong Hwa University, Taiwan

Shu Chu Yang, National Chiayi University, Taiwan

Childhood is the key period for the development of fundamental movement skills, the acquisition of which has a definite bearing on a child's overall development, including such areas as cognition, interpersonal relationships, social behavior, and environmental awareness. The main purpose of this research was on the development of the norm of fundamental movement skills for children aged three to seven. In this study, we measured the development of such skills amongst 1,029 children in Taiwan aged 3–7 using the Test of Gross Motor Development-2 (TGMD-2). The results indicate that the fundamental movement skills increase with age. With a percentile rank of 50 in the overall fundamental movement skills, the mean score of the eight age groups, boys performed better than girls in the seven age groups. Compared to the United States, Taiwanese five through seven-year-olds lag far behind their American counterparts in locomotor and object control skills, and this situation needs to be addressed by education authorities in Taiwan.

**54466**

### **The Adaptation to School Life by Twins in Different Classes at the Same Preschool**

Li-Chun Lin, National Chiayi University, Taiwan

The purpose of this study was to elucidate the adaptation to school life of twins in different classes at the same preschool. A qualitative research methodology was used, and the participants were five-year-old twin brothers, an extroverted older brother, and a depend younger brother. The results were as follows: 1. Learning. When they started preschool at the age of four, the younger twin had severe separation anxiety, and during his first year at preschool frequently cried and sulked. By the second year, however, he became interested in learning. By contrast, the older twin readily adapted to preschool. 2. Following rules. During the first three weeks the younger twin frequently stormed into his brother's classroom, but with the teacher's emotional support he eventually stopped. 3. Interpersonal interactions. After adapting during the first year, the younger brother gradually began to cooperate with his classmates and to make friends. By contrast, the older brother immediately began to interact with his classmates, and made some friends. As for the interaction between the twin brothers, by the second year they got along well and the younger brother had become independent. Suggestions: Preschool teachers need to have an emotional support strategy for dealing with the separation anxiety often experienced by twins and other siblings; it's also suggested that they organize lots of outdoor activities, since this encourages introverted or passive kids to interact with their classmates, thereby helping them to adapt more quickly.

**53588**

### **Designing Experiential Learning Activities for Primary Schoolers**

Le My Tra, Dong Thap University, Vietnam

Experiential learning is now deemed a crucial part in primary education in almost all learning contexts because it helps develop and cultivate children's cognitive and life skills. It functions as a bridge linking the

knowledge that children acquire in regular classroom and their experiences built up by participating in real life activities, especially beyond classroom. With this in mind, the present study made an attempt to design an experiential learning model with coherent steps for primary schoolers by referencing Kold's theoretical framework (2015). And thereby, this study empirically made a concrete plan and administered a one-day field trip for the primary schoolers in Cao Lanh City, Dong Thap Province, Vietnam. The results obtained are overallly positive, but there is room for improvement. Thus, the study makes recommendations to primary school teachers for effectively designing and operating experiential learning activities.

**54465**

**The Difficult Items in the TGMD-2 and BOT-2 for Taiwanese Preschoolers**

Shu Chu Yang, National Chiayi University, Taiwan

Shu Jung Lin, NanHua University, Taiwan

Hsin Ying Chang, National Chiayi University, Taiwan

The main purpose of this research was to determine which items in the TGMD-2 and BOT-2 preschoolers have difficulty with. The methodology consisted of testing and observation. The participants were 40 preschoolers, 20 aged 4–5 and 20 aged 5–6, all of whom completed both of these standardized tests. The findings were as follows: For TGMD-2, In galloping, the 4–5-year-olds lacked a coordinated stride. Over 85 percent of all children were unable to transfer body weight to the front foot. Around 70 percent of the 4–5-year-olds were unable to push a ball with their fingertips, and 65 percent of the 4–5-year-olds were unable to maintain control of a ball for four consecutive bounces without having to move their feet to retrieve it. For BOT-2, all children had difficulty copying a five-pointed star and dribbling a ball with alternating hands. Around 95 percent of the 4–5-year-olds were unable to do the knee push-ups, and 42 percent of them were unable to do sit-ups. It is recommended that preschool teachers should design low structured ball activities, which kids enjoy playing due to the lack of formal instruction. Moreover, instructions and demonstrations should be given in a lively manner, so as to make the activity more appealing. Finally, in light of the difficulties Taiwanese preschoolers have with several of the items (dribbling, dribbling with alternate hands, etc.), we recommend that the scoring criteria be modified based on the results of same tests administered in various countries.

## Saturday Session II: 10:30-12:10

Room: *To be Announced in Final Schedule*

Session Topic: Learning Experiences: STEM Education

Session Chair: *To be Announced in Final Schedule*

**54481**

### **Using Video Analysis as a Tool in Teaching Physics**

Matúš Sitkey, Constantine the Philosopher University in Nitra, Slovakia

Ľubomíra Valovičová, Constantine the Philosopher University in Nitra, Slovakia

Computer-assisted measurement is part of many disciplines and scientific fields. The use of this technology is no longer a prerogative of highly studied professionals at scientific level, but it is becoming part of the everyday professions. It is important for pupils at primary school to be familiar with the computer-assisted measurements, to have the skills necessary to understand the basic principles, the use of the technology, competencies to read and use the obtained information. The use of computer-assisted experiments thus becomes an important part of primary school teaching. In our research, we focused on using the free Tracker and Coach software. In terms of computer-assisted measurements, we have dealt with parts of the video recording. We analysed one teaching unit, which focused on evenly accelerated movement. As part of their investigations, pupils analysed videos about moving, specifically on the example of free fall. From changing the parameters of the subjects studied, pupils, after video analysis, deduced the individual characteristics of free fall. Questionnaires have been implemented to address the pupils' misconceptions and an increase in knowledge. Research findings show that linking the classical lesson to the free-fall video analysis could be an innovative and effective pedagogy that helps to link abstract physical concepts to reality and thus prevent the emergence of false ideas on the free-fall theme.

**53146**

### **Senior High School Learners' Modern Biotechnology Literacy: Inputs for the Development of Instructional Materials**

Ariette De Asis, Alimodian National Comprehensive High School, Philippines

Roel A. Alli, West Visayas State University, Philippines

This study utilized the Instructional Design (ID) using the ADDIE (Analysis, Design, Develop, Implement, and Evaluate) model, which ascertained the level of knowledge and attitude towards modern biotechnology among Senior High School (SHS) learners. This study determined the learning gaps of SHS learners based on their knowledge and attitudes toward modern biotechnology and identified the difficulties encountered by SHS teachers in teaching the concepts of modern biotechnology, which served as the bases in the development of instructional materials (IM). The respondents of this study were 371 learners and 38 teachers of the Second District Public Schools in the Province of Iloilo, Philippines. Three validated researcher-made instruments were utilized: Modern Biotechnology Knowledge Test (MBKT) and Modern Biotechnology Attitudinaire (MBA) for the learners and Modern Biotechnology Survey Checklist (MBSC) for the teachers. Results revealed that SHS learners have low level of knowledge but have favorable attitudes toward modern biotechnology. Unavailability of learners' materials and resources was identified as the major problem encountered by teachers. The developed IM was designed to address the learning gaps and encountered difficulties of SHS learners and teachers. In the implementation of the developed IM, the learners described their learning experiences as fun but not easy, challenging but informative, and interesting but requires in depth understanding. The developed IM gained an excellent evaluation, which may be used by SHS learners and teachers in improving learners' conceptual understanding, while building concrete judgments toward the processes and products of modern biotechnology.

**54482****Popularization of Physics in Informal Education**

Matúš Sitkey, Constantine the Philosopher University in Nitra, Slovakia

Ľubomíra Valovičová, Constantine the Philosopher University in Nitra, Slovakia

Ján Ondruška, Constantine the Philosopher University in Nitra, Slovakia

The popularization of science today is a very important and necessary activity of scientists, which should have a positive impact on the general public and also on scientists themselves, and should encourage public interest in science. In the context of popularization, particular emphasis shall be put on the clarity of the information submitted, not only to the scientific community but especially to the general public. Among the greatest barriers between science and society are public mistrust among scientists and their expertise. In the article we present the science show “PHYSIC LIVE”, which has been prepared for 1000 primary school pupils in the pre-Christmas period for 10 years. New experiments are each year presented within the science show “PHYSICS LIVE”.

**54027****Enhancing Thai Science Teachers’ Implementations of Integrated STEM Curricular Units Through a Phenomenological Multiple Case Study**

Siriwan Chatmaneeerungcharoen, Phuket Rajabhat University, Thailand

Integration of STEM disciplines provide students an opportunity to experience learning in multidisciplinary context. To produce a generation interested and skilled in STEM with school level, the important factor is the teams of teachers who work together in an integrated approach, based on cross- curricular teaching and learning. Teachers play a key role in STEM education, and it is important to attract high achievers with relevant backgrounds into teaching. This research study focused on the understandings, and practice of pre-service teachers to teach STEM. Phenomenological multiple case study is used as framework to understand 5 science teachers’ first-time experiences in implementing integrated STEM curricular units in their elementary and middle school science classrooms. This study draws upon both classroom implementation data and teacher reflective interviews to illustrate different degrees of integrated STEM instruction and to understand teachers’ challenges and successes with these varying approaches. The findings indicate that pre-service teachers have strong understanding of STEM implementation. The results of this study also presents that the capacity they have built provides them with explicit views on how to teach STEM in schools now and informs what they need for the future teaching of STEM through continually professional development. Pre-service teachers were challenged to make explicit connections between science, engineering, and mathematics while simultaneously maintaining a motivating and engaging context for their students throughout their instruction.



## Saturday Session III: 13:10-14:25

Room: *To be Announced in Final Schedule*

Session Topic: Language Learning - Vocabulary

Session Chair: *To be Announced in Final Schedule*

**54309**

### **Using Mobile Games to Enhance English Vocabulary Knowledge: A Case Study of Thai Employees in an International Workplace**

Nichakan Horphet, Srinakharinwirot University, Thailand

Supaporn Yimwilai, Srinakharinwirot University, Thailand

Vocabulary knowledge is significantly important for English language communication. However, research studies have reported that English as a foreign language (EFL) were lack of sufficient English words to use for speaking and writing. The issue is currently also being problematic for employees in many international workplaces who specialized in other skills rather than English, but require the skill of English to use in their workplace. This study was designed to investigate the effect of mobile games on Thai employees' vocabulary knowledge, as well as to investigate attitude of Thai employees towards vocabulary acquisition through mobile games. The participants were twenty-five EFL employees. The research instruments employed in this study comprised of an English vocabulary test and a semi-structured interview. The quantitative data from both pretest and posttest were analyzed by the mean scores, standard deviations, and t-test analyses. For the qualitative data, the semi-structured interviews were analyzed by content analysis. The results of this study showed that employees could improve their vocabulary knowledge from using mobile games. There were statistically significant differences between pretest and posttest scores, including the mean scores of the group of employees. In addition, the level of attitude toward using mobile games to enhance vocabulary knowledge was highly positive.

**52834**

### **Improving Vocabulary and Confidence Through Extensive Reading**

Joel Weinberg, Meiji University, Japan

Extensive Reading has been touted as beneficial for improving students' reading fluency, speed, confidence, and vocabulary. This paper explains how teachers can observe and measure these last two claims. Administering vocabulary level tests at the start and end of the semester indicates that there is a positive correlation between Extensive Reading and an increase in receptive vocabulary size. Additionally, students' self assessment surveys of their vocabulary size show that Extensive Readings also raises their confidence in their vocabulary, which feeds into a self-propelling virtuous loop: reading leads to improved confidence, which leads to more reading. These findings should reaffirm the virtues of Extensive Reading for teachers who are already committed to it, and convince teachers who would like to see more evidence of the benefits that result from Extensive Reading.

**54201**

### **Vocabulary Teaching and Students' Perception in an ESP Course**

Minako Inoue, Health Science University, Japan

In the ESP approach, acquiring relevant vocabulary plays a crucial role in success in learning. Since the vocabularies in ESP are unique to their respective fields, students are required to master technical or semitechnical vocabulary in their designated fields in addition to general vocabulary. The current study presents one approach, providing procedures and concrete example, to teaching a body of ESP vocabulary difficult to learn or master. Meanwhile, the study uses questionnaires to examine students' perception and



evaluation of this approach. The data were entered in SPSS for descriptive approaches as well as correlational analysis. The classes involved were two Physical Therapy (PT) major classes, each consisting of 54 students. The study reveals that even though students feel the importance and benefits of vocabulary learning, especially ESP-related vocabulary, they are not making efforts to increase their vocabulary. Not a few students claim they rarely look up the meaning of unknown vocabulary in class. In such a situation, the results of students' perceptions and evaluation of instruction emphasizing vocabulary learning revealed that all activities were perceived as beneficial. Although Ministry of Education, Culture, Sports, Science and Technology in Japan emphasizes the importance of vocabulary, no clear or concrete directions for implementing effective vocabulary teaching have been stipulated. Therefore, the challenge that English teachers face is to create learning environment that motivates students to increase their vocabulary. Careful examination on needs assessment should be performed so that necessary steps can be implemented.

## Saturday Session III: 13:10-14:25

Room: *To be Announced in Final Schedule*

Session Topic: Student Teachers

Session Chair: *To be Announced in Final Schedule*

### 53183

#### **Development of Learning Modules for Enhancing Classroom Action Research Skills of Student Teachers**

Suwimon Wongwanich, Chulalongkorn University, Thailand

Chayut Piromsombat, Chulalongkorn University, Thailand

Kanit Sriklau, Chulalongkorn University, Thailand

A crucially important quality student teachers preferably possess in order to facilitate their own learning and career relates to classroom action research skills. This study aimed to design learning modules for enhancing classroom action research skills among student teachers. This design-based research was divided into three phases. The first phase was the development of the design principle in order to form the conceptual basis for arguments in learning modules. The second phase involved the experiment on the implementation of the learning modules on five groups of student teachers in diverse contexts. Data were collected using observation and assessment of classroom action research reports. After that, the data content was analyzed. The final phase dealt with the presentation of the new design principle by adopting lessons from the learning modules. The results were as follows. First, there were six learning modules for classroom action research, and 14 weeks of treatment adaptation. The design principle of learning modules created knowledge and skills for classroom action research as well as improving awareness, attitudes, self-awareness and research commitment. Second, the result of the experiment of the learning modules revealed that student teachers held the opinion that classroom action research was not difficult and they understood its benefits. The result of the assessment revealed that student teachers had the right knowledge and products followed the principles of classroom action research. Third, the new design principle was the interaction between students and the classroom action research activities and that consistency was necessary throughout the whole process.

### 54404

#### **A Causal Model of Student Teachers' Ambition for Becoming Teachers**

Natthapol Jaengaksorn, Chiangmai University, Thailand

Student teachers' ambition for becoming teachers is crucially vital in effectively making the decision to be in the teaching profession. The current research endeavor attempted to 1) study levels of motivation to be teachers, pedagogical knowledge, awareness of their teaching abilities, and the ambition for having a teaching profession. 2) Also, the current research study developed and investigated the causal model of student teachers' ambition for becoming teachers. The sample consisted of 350 student teachers from three universities in Chiang Mai (Chiang Mai University, ChiangMai Rajabhat University, and The Far Eastern University). The data was collected by means of a questionnaire with the reliability of 0.94-0.95 and analyzed by using descriptive statistics calculated by SPSS. Also, the model for structural equation was analyzed using Mplus. The results revealed as follows: 1. Student teachers were highly motivated to become teachers and possessed a high level of pedagogical knowledge, awareness of their teaching abilities, and ambition to become teachers. 2. The developed causal model of student teachers' ambition for becoming teachers was consistent with the empirical data. Factors that influenced their ambition included the motivation to become teachers, the awareness of their teaching abilities, and pedagogical knowledge, all of which had a direct impact on their ambition for becoming teachers. Meanwhile, pedagogical knowledge indirectly affected the ambition for becoming teachers through their awareness of teaching abilities.

**54094****Supporting Teacher Education with Video-based Noticing: A Technological Innovation**

Oi-Lam Ng, The Chinese University of Hong Kong, Hong Kong

In light of developments and emphasis in technology-enhanced teaching and learning in recent years, connected, yet often overlooked, is the need for teacher education training to equip teacher candidates with the necessary technological skills and pedagogical content knowledge for preparing technology-enhanced lessons. Without adequate training, it is difficult for pre-service teachers to plan effective lessons and to interpret students' actions and difficulties during the lessons due to their lack of classroom experience, especially when implementing technology-enhanced pedagogies. This paper discusses the design of technology innovation and its potential for supporting teacher noticing in teacher education programmes, especially in the context of technology integration. Specifically, it explores the use of an instant video-commenting feature built into an online course management system and the accompanying blended learning activities which aim to: (1) assist and improve pre-service teachers' noticing skills, (2) enhance video engagement in blended classroom teaching and learning, and (3) facilitate in-class discussions of pre-service teachers' noticing of classroom episodes in which technology was integrated into the lessons. It was found that pre-service teachers demonstrated solid noticing skills and high fluency in describing subtleties of the classroom episodes. It is concluded that the designed blended learning activities with reflective video-based teacher education course materials address pre-service teachers' technological and pedagogical content knowledge in underpinning successful integration of technology in mathematics classrooms. Other findings from a pilot implementation, affordances of the innovation in relation to providing individualized noticing and formative assessment, and potential research direction in teacher education will be discussed.

## Saturday Session III: 13:10-14:25

Room: *To be Announced in Final Schedule*

Session Topic: Mind & Brain

Session Chair: *To be Announced in Final Schedule*

**53608**

### **Towards Better Brain Training: A Computational Cognitive Modelling Approach to Improving the Design of Executive Function Training in Educational Contexts**

Nigel Robb, University of Tokyo, Japan

Executive functions (EFs) are high-level cognitive abilities which coordinate lower-level cognitive abilities. Research demonstrates the importance of EFs in many contexts, including health, social functioning, and education. Aspects of EFs may predict academic performance; it has also been suggested that computerized EF training may benefit both children and adults in education and daily life. However, research on the effectiveness of current EF training programs is controversial. Recent criticism of companies that develop and market so-called “brain training games” focuses primarily on the fact that some such companies have overgeneralized the potential benefits of EF training without enough evidence to support their claims. One specific issue is that the mechanisms by which such training might be effective are not well understood. Researchers now recognize that, to ensure sound investigation of the effectiveness of EF training, it is essential that we consider systematically how specific features of these programs may contribute to improving EF. The current study demonstrates the feasibility of a novel method, using computational cognitive modelling, to investigate these specific mechanisms efficiently. Using a prefrontal cortex model implemented in the Leabra cognitive architecture, several potential EF training mechanisms (based on tasks found in popular EF training games) were simulated: in this short paper, some representative examples are described. The main contributions of the current study are (1) to demonstrate the feasibility of this novel approach, and (2) to demonstrate, in a non-technical, accessible way, how it may be utilized to potentially offer more effective EF training in an educational context.

**53410**

### **A Study on the Feasibility of EEG to Improve the Application of Educational Objectives in Vocational Education Psychomotor Domain**

Wen-Tsai Huang, National Taipei University of Technology, Taiwan

Chin-Yen Lin, National Taipei University of Technology, Taiwan

Don-Yang Fong, National Taipei University of Technology, Taiwan

Taiwan's vocational education values the practical skills. The primary goal is to cultivate students' abilities to meet the needs of the workplace. The psychomotor domain is a combination of "Psycho" and "Motor". The connection of basic motor will form skills for different tasks. The performance of physical activities will promote the interpretation of cognitive functions and various psychological states. The use of EEG is one of the methods to measure motor skills in psychophysiology. The purpose of this study was to investigate the feasibility of using EEG to improve skills development through literature analysis. It were found that there was a lot of improvement in athletic motor skills, including the use of EEG to improve archery targeting, and it was also found in the literature that there were also artifacts caused by body movements that the researcher could not control. Due to the nature of individual movement, even when two people are doing the same action and their brains perform the same message processing mode, they will show different levels of motor behavior because of their skills difference. This study suggested that EEG should be applied with the appropriate practical skills category in order to help the contestants or students to improve their national vocational skills and increase their level of confidence and achievement.

**53083****Working Collaboratively Among Neuroscience and Education to Foster Better Understanding of Cognitive Development**

Kourtland Koch, Ball State University, United States

Abstract: To date, both neuroscience and education have focused on cognitive development, yet both sides have often neglected how they can work collaboratively to identify and monitor strategies which produce clinically based results that can be applied to educational practices. Encouraging teachers to turn their attention to social and emotional environments in which children encounter learning; it becomes possible to modify educational practices based upon neuroscience. If we can learn to appreciate the diversity of strategies that researchers apply to answer a specific question, then education may also benefit by emphasizing the importance of teaching different strategies and helping students develop the skills necessary to be able to take different approaches to a problem. Research in neuroscience, cognitive science, and educational research has intensified in recent years. These endeavors have provided an opportunity to understand and apply current research findings with the hope it may eventually be possible to identify selected teaching methods associated with specific types of brain activation. Additional outcomes may be informing teachers how the brain works and develops as the child progresses through school, based on developmental milestones from birth through the adult years. This will require teachers to become more critical when evaluating the latest neuroscience findings to avoid the misapplication of concepts which have been noted by Bruer (1998) and others (Fischer, 2009) over the past 20 years.

## Saturday Session III: 13:10-14:25

Room: *To be Announced in Final Schedule*

Session Topic: Inclusion

Session Chair: *To be Announced in Final Schedule*

**54561**

### **Females Choosing Computer Science Courses? Australian and Taiwanese Perspectives**

Shu-Hua Chao, Monash University, Australia

The underrepresentation of females in IT-related studies in secondary and higher education has been an ongoing issue for more than the past two decades. Computer science (CS) is one of the IT-related fields which has long been characterised by low female participation in undergraduate courses. This study examines key factors that influence the choices of undergraduate Computer Science (CS) and non-CS (NCS) courses by females in the educational contexts of Australia and Taiwan. Using Eccles et al.'s (1983) expectancy value model, the following were used to explore females' CS and NCS course choices: a) previous CS achievement-related experiences; b) subjective task values (e.g., interest—enjoyment, attainment, utility and relative cost); and c) individuals' perceptions of CS-related courses and careers. Results from this mixed-methods study (Phase 1 surveys: 81; Phase 2 interviews: 11) revealed 'personal interest' was the most important factor for course choices by the majority of females surveyed in both contexts. However, interview findings revealed other factors such as: a) previous IT related learning experiences; b) individuals' perceptions and understanding of IT or CS-related studies and careers; and c) other subjective task values attached to IT/CS related learning. An important conclusion is that while personal interest was the key factor for Australian females' course pursuit, previous IT related learning and perceptions of the studies and careers also influenced their course choices. Taiwanese females, in contrast, placed a greater attainment value on attending a prestigious university, as well as career prospects, when making their course choices.

**53947**

### **Better Teaching, Better Learning: Engaging Students Through Classroom Inclusion**

Sharon G.M. Koh, Monash University Malaysia, Malaysia

Juliana French, Monash University Malaysia, Malaysia

The higher education landscape is fast changing with culturally diverse classrooms that present both opportunities and challenges. Students come into universities with ingrained beliefs about teaching and learning. In a culturally diverse classroom, these worldviews are often confronted. Furthermore, indoctrinated cultural stereotypes about teaching and learning are tested. Thus, the culturally diverse classroom is as much a battlefield for the learner as it is an orchestra for the educator. Additionally, students have to navigate the travails of assessments. The question remains "How do we foster student-centeredness in a culturally diverse classroom?" As such, effective delivery in teaching becomes vital to resolve the gap between student engagement and knowledge retention. This paper report results from active learning strategies conducted over one semester for different units presented as two case examples. Findings reveal the need for educators to continually engage students as new technology is ubiquitous to students' day-to-day life. Compounding the challenge is an increasingly culturally diverse and geographically dispersed classroom. The educators demonstrate how active learning can promote an inclusive environment to break down any idiosyncratic and cross-cultural barriers. Unlike self-learning, independent learning focuses on individual experience, whereby the educator helps the students see the big picture by building comprehension and synthesis of the subject matter. Building upon a responsive setting for mutual participation, the formal and informal curricular become blended, and thereby contribute towards profound educational experience.

**53335****Teacher Education and Inclusive Education in Kazakhstan**

Tsediso Michael Makoelle, Nazarbayev University, Kazakhstan

Kazakhstan is in the process of implementing inclusive education at all levels of its education system including in teacher education institutions referred to as pedagogical universities. The implementation of inclusive education is marred with challenges, anomalies and contradiction. The aim of the study was therefore to explore the governance, curriculum and pedagogical needs of Kazakhstani pedagogical universities in implementing inclusive education. These needs were determined by exploring first how inclusive education is defined and conceptualized within pedagogical universities, determined the extent to which inclusive education is made part or incorporated into the curriculum of pedagogical universities. Furthermore, the study was also identifying governance and pedagogical practices that hinder or promote the implementation of inclusive education within the context of a Kazakhstani pedagogical university. This was a qualitative study which used unstructured interviews to 10 teacher educators and 5 pre-service teachers in two pedagogical universities and a pedagogical college. Furthermore, 5 in-service teachers were interviewed in two mainstream schools in Kazakhstan. The study identified several governance, curriculum and pedagogical barriers and challenges for implementation of inclusive education and makes recommendations towards the enhancement of inclusive education in Kazakhstan.

## Saturday Session III: 13:10-14:25

Room: *To be Announced in Final Schedule*

Session Topic: Ethnography

Session Chair: *To be Announced in Final Schedule*

**53014**

### **The Ethnomathematics of the Bukidnon Karulano Indigenous People Towards the Development of Instructional Materials**

Renith Guanzon, STI West Negros University, Philippines

Emellie Palomo, West Visayas State University, Philippines

This ethnographic research aimed to determine the ethnomathematical concepts and ideas of the Bukidnon Karulano indigenous people in Kabankalan City, Negros Occidental, Philippines. The informants were the 5 Council of Elders, 2 IP members, 4 school learners, and 2 mathematics teachers. The needed data were gathered using observation, interview, focus group discussion, photo and video elicitation. These data were analyzed using Spradley's Ethnographic Research Cycle. The study revealed that the indigenous people hold an abundance of ethnomathematical ideas and concepts along the areas of counting, measuring, classifying, ordering, inferring, and designing. The common methods used by the Bukidnon Karulano in learning their ethnomathematical concepts and ideas are observation, imitation and modeling, apprenticeship, storytelling method, and participation in IP celebrations. School learners use their ethnomathematical concepts and ideas in learning mathematics in formal education through abstraction, representation, and authentic learning. The developed instructional materials integrating the ethnomathematics of the IP was formulated to contextualize mathematics education experienced by the school learners. These materials can be utilized in teaching mathematics for Grades 6, 7 and 9. Finally, it is recommended for teachers in mathematics to use and expand the material which may include additional topics and activities. It is further recommended that future researchers may consider investigating the effectiveness of these developed materials in the mathematics' achievement of the IP school learners.

**52737**

### **Gathering of 'Tacit Knowledge' Through Oral History**

Zanaria Saupi Udin, Universiti Malaya, Malaysia

The University of Malaya is the oldest campus in the country. Over the years, many of its scholars including professors and staff have retired; many who are distinguished and reputable experts in their fields. Hence, there is a need to gather tacit knowledge from these individuals rapidly before the information are vanished forever, particularly non-quantifiable knowledge about social interactions that explained how decisions were made, how groups worked together and how communications flowed so that this crucial information can be passed on to future generations for reference and as a guidance. Such knowledge while unpublished, are commonly conveyed by narrative, although it is impossible to represent the knowledge explicitly. This paper provides an insight on the oral history project conducted by the University of Malaya Library and how the 'tacit knowledge' was gathered. It examines challenges in developing such spectrum of knowledge and discusses how the issues can be overcome. It is also hoped that through oral history, the depth of understanding from various perspectives and different situations could be further heightened. Furthermore, individuals are able to share their stories in their own words based on their own interpretations which are then recorded and preserved.



53052

**Mathematics of the Fisherfolks: Basis for Contextualized Teaching-Learning Materials**

Renato Jr. Herrera, Jose Monfort National Science High School, Philippines

This design ethnography was conducted in two fishing villages in Barotac Nuevo, Iloilo, Philippines to gather data about the mathematical activities of the fisherfolks, the mathematical ideas that they integrated into their activities, and problem-solving situations faced by the fisherfolks. The data were used as inspiration and grounding for designing and developing a context-based teaching-learning materials that are culturally appropriate for learners in coastal communities. Seven key informants were chosen purposively. Participant observation, ethnographic interviews and elicitation techniques were used for data gathering and triangulation. Furthermore, IDEO's design thinking toolkit for human-centered design were used as guide for designing and developing the contextualized teaching-learning materials. The analyses using LeCompte's item, pattern, and structure level analysis revealed that fisherfolks integrate mathematical ideas into their activities. Moreover, the work-related problem-solving situations faced by fisherfolks were: (a) locating submerged fishing gears, (b) attaching floats and sinkers, and (c) releasing fish fry into a pond. To address these problem-solving situations, fisherfolks used trial-and-error method, making decision based on previous experiences, and creative thinking and resourcefulness. These results can be used to mediate learners' culture and mathematics education through using cultural artifacts as ethnomodels and using social situations as context. All of these were integrated into the Mathematics of the Fisherfolks, a context-based mathematics activity book for junior high school learners, and the Teaching Guide on Mathematics of the Fisherfolks.

## Saturday Session III: 13:10-14:25

Room: *To be Announced in Final Schedule*

Session Topic: Environmental Education & Natural Disasters in the Classroom

Session Chair: *To be Announced in Final Schedule*

### 53000

#### **Creativity, Communication Skills, and Habits of Mind through Mathematical Modeling of Natural Disasters toward Successful Production of Models**

Garry Cachuela, West Visayas State University, Philippines

Elvira Arellano, West Visayas State University, Philippines

Mathematical modeling (MM) is considered as one of the many skills and processes in order to attain the twin goal of the K to 12 Mathematics curriculum in the Philippines. While the necessary skills in doing MM have been identified in many developed countries, there is still a dearth of literature and empirical data in different Filipino communities. In response to this need, the mixed-method study aimed to determine the production skills needed by students to successfully come up with a mathematical model on natural disasters. The validated and reliability-tested researcher-made test and rubrics on Mathematical Creativity, Communication, and Habits of Mind (HoM) were used to measure students' mathematical creativity, communication skills, and HoM. In-depth interviews, focus group discussions, journals, observation guide, and MM outputs were used to gather qualitative data. The results revealed that students have increased their level of mathematical creativity, communication skills, and HoM after being exposed to MM. Also, a significant relationship existed among students' level of mathematical creativity, HoM, and communication skills after they were being exposed to MM. In an MM activity, three important themes of productions skills are necessary for the students to successfully produce a mathematical model, namely mathematical creativity, mathematical HoM, and mathematical communication. Propositions for the emerging grounded theory framework with conditions set by this present investigation were also discussed. Hence, the teaching and learning of mathematics must give emphasis on integrating MM in the mathematics curriculum and its significance to students' production skills development, and 21st century lifelong learning.

### 53777

#### **Integration of Disaster Risk Reduction in the School Curricula in Promoting Capacity Building and Raising Awareness**

Gian Carla Rico, Saint Jude Catholic School Manila, Philippines

The integration of Disaster Risk Reduction (DRR) into the school curricula is strengthened by the implementation of DRRM Act in the Philippines. One of the provisions highlighted in the law is the integration of DRR into the school curricula. Raising awareness and capacity building are some of the proactive approaches which could be utilized that will allow participation of different stakeholders. This study analyzed how disaster risk reduction is integrated into the school curricula in the Philippines. Through analyzing the curricula from the basic to the tertiary levels and the responses of the participants in this study who are primarily students and teachers in Manila, the results highlighted the importance of learning disaster risk reduction at school particularly when done with activities familiar to learners. Awareness is raised through knowledge dissemination, simulation activities and consistent campaigns in promoting the capacity of individuals to reduce the risks of disasters. Learners from the higher levels manifest their capacity as potential aids through their knowledge of basic first aid and life support. Most of the respondents take active participation in DRR practices. However, some challenges and gaps were also identified as some teachers lack sufficient number of and relevant trainings that will update their knowledge on disaster risk reduction and equip them with the relevant skills which they can pass on to the learners. The curriculum design and

the practices, at some extent, do not complement in consideration of available resources, teacher's knowledge and skills, and time element.

**52447**

**Ecopedagogy or Environmental Education?: The Role of Educators in Addressing Climate Change**

David Humphreys, The Open University, United Kingdom

Climate change and the degradation of the biosphere represents the greatest public welfare challenge of the twenty-first century. It calls for a public education endeavour involving not just the academy and students but the global public. Ecopedagogy offers the prospect of a new curriculum, a radical approach to education that resists those political and economic structures that generate environmental problems while working with social movements to generate an alternative politics. It challenges those engaged in environmental education to rethink how they teach agency to students and what the role of the educator should be in teaching citizens to consider how they should respond to environmental degradation. This paper explores the relevance of the concept of ecopedagogy as a teaching model. It presents some examples of teaching on agency and environmental issues from Open University environment modules that encourage students to critically assess their role in responding to global environmental degradation. The paper also considers the development of a live synchronous negotiation to teach international environmental negotiations, and a climate model to teach students how scientists make predictions on future anthropogenic climate change.

## Saturday Session III: 13:10-14:25

Room: *To be Announced in Final Schedule*

Session Topic: Higher Education: Flipped & Blended Classrooms

Session Chair: *To be Announced in Final Schedule*

**53342**

### **Perceived Benefits and Challenges of Flipped Classroom: Voices From Teachers in Hong Kong's Higher Education**

Alan Hiu Hin Tse, The Chinese University of Hong Kong, Hong Kong

Paul Lai Chuen Lam, The Chinese University of Hong Kong, Hong Kong

Hilary Ka Yan Ng, The Chinese University of Hong Kong, Hong Kong

Carmen Ka Man Lau, The Chinese University of Hong Kong, Hong Kong

Flipped classroom is increasingly being adopted in higher education institutions worldwide. Many studies on flipped classroom focused on evaluating its impact on students' learning outcomes. Relatively little is known about the perceived benefits and challenges of flipped classroom from the teachers' perspective. The present research conducted in-depth interviews with 21 teachers from diverse academic disciplines in five different universities in Hong Kong. These teachers were recruited to share their experiences in adopting flipped classroom in their practice. Flipped classroom was found to be associated with many benefits to the teachers, such as gaining the flexibility in the use of valuable class time, enhancing the quality of teaching, and increased opportunity for the teachers' professional development. However, there are challenges in adopting flipped classroom in their teaching practice. Specifically, many found it challenging to motivate students to engage in the pre-class learning material. Their workload also increased when implementing and managing the flipped classroom. It was also difficult for them to choose suitable pre-class learning materials. The teachers also shared a variety of strategies to overcome these challenges. For example, they provided incentive to motivate students to prepare for pre-class learning materials. Some look for high-quality pre-class material from public domain to reduce workload. Many believed that further institutional support are needed to fulfil the full potential of the flipped classroom approach. Possible measures that could help teachers to reap the benefits of this new learning approach while mitigating the challenges will be discussed.

**53973**

### **The Implementation of Flipped Classroom: Students' Responses from Different Fields Area of Study in Higher Education**

Ima Isnaini Taufiqur Rohmah, IKIP PGRI Bojonegoro, Indonesia

Ifa Khoiria Ningrum, IKIP PGRI Bojonegoro, Indonesia

M Zainudin, IKIP PGRI Bojonegoro, Indonesia

In this 21st century is the milestone of the implementation of the Flipped classroom. It was popular as a means to support student learning in all level of education, especially in higher education by requiring students to prepare before lectures and actively engaging students during lectures. While some research has been conducted into teachers' preparation, student performance in the flipped classroom, students' responses throughout a flipped course has not been investigated. This study under qualitative case study explored students' responses throughout a flipped by means of bi-weekly diaries. 15 students from 3 different fields were involved to gain the data. Those 15 students consisted of students from Economics, Mathematics, and English Education Department. The results indicated that for about 75% students considering that Flipped classroom model is more interesting than traditional one and the rest considering that Flipped classroom model is quite hard to be implemented in certain areas of study. Further research focused on exploring the challenges in implementing a flipped classroom is needed to be investigated.

52960

**Does Blended Learning System Boost Student's Knowledge Sharing in General Education Course? The Indonesian Higher Education Challenge**

Dasim Budimansyah, Indonesia University of Education, Indonesia

The role of General Education is to equip students with basic knowledge, to understand the relationship between one science and another, to teach how to apply human knowledge and experience universally, so that it will enhance mutual understanding and respect for human beings. One of the challenges in General Education learning in higher education is to improve the ability of student's knowledge sharing. Knowledge sharing is usually not something normal, humans tend to hoard knowledge and perceive suspicious knowledge from others. In this context General Education course should strive to foster the habit of sharing knowledge in order to become the character of students as young intellectuals. The use of Blended Learning in General Education course will provide opportunities for students to share knowledge online. But the experience of using Blended Learning at Indonesia University of Education, online forums is nothing more than an empty framework because it is considered to have insufficient knowledge and is needed by students. This study seeks to find ways to improve the Online Knowledge Sharing Character (OKSC). In this paper we view that OKSC is influenced by intention factors, self-efficacy, social interaction, and technological satisfaction factors.

## Saturday Session III: 13:10-14:25

Room: *To be Announced in Final Schedule*

Session Topic: Early Childhood Education

Session Chair: *To be Announced in Final Schedule*

**53623**

### **Boost Sight Reading Skills of Students Using Melodic Ostinato**

Queeny Rose Ann Penaflorida, Assumption College, Philippines

This study aims to boost the sight-reading skills of the inexperienced grade six students through the use of melodic ostinato patterns as a strategy. Prior to the demonstration teaching, information about the current status of music education in the provincial setting was gathered and generated through field observations and interviews with the students and music teachers. It is noted that teachers who handle music classes are not really music major graduates. It serves as one factor why the application of musical concepts particularly in sight-reading was not given emphasis in the classroom teaching. Guided by Orff, Campbell and Scott-Kassner philosophy of sequential learning, a strategic framework that uses the melodic ostinato patterns with three phases: (1) rhythm patterns (2) melodic patterns (3) part-singing, was created as a guide in teaching sight-reading. There were individual and group skills tests and performance-based tests to assess the strength of the sight-reading skill acquisition of students. Findings indicated that sight-reading plays a significant role in the music classes. The students were able to read musical score through individualized and group interpretations. The findings showed that through simple melodic ostinato patterns used in this study can help develop the sight-reading skills of the students upon following the step by step procedure. Students were provided with the necessary materials to be able to understand and interpret music when they see it. Since melodic ostinato patterns are done repeatedly, it increases retention on students' note reading.

**54517**

### **Creating Social Responsibility Among Children Through Illustrated Storybooks**

Garima Joshi, Publicis Sapient, India

Modern living offers us resources and makes our life easy. Electricity is one such privilege we have. In a massive developing nation like India, we need to be judicial in the way we utilize our resources. Constant consumption raises a pressing need to rethink our ways of life. The first step towards a positive change is to acknowledge the fact that the problem exists. Along with this awareness, we need to change our habits and our mindsets, that make us believe that our individual efforts don't have sufficient momentum. Thus, to start a positive change we need to start sooner to sensitize children regarding the impact of consumption of resources around them and how their efforts matter in this big world. It's high time we evolve our bedtime stories. This illustrated book aims to inculcate a sense of social responsibility and confidence in one's positive actions. It revolves around a child's bizarre encounter with a whimsical character, who claims to call itself Elec aka Electricity. Electricity is personified as a character to give it tangible quality and emotion. The events make the kid observe and learn about electricity, its overconsumption and how to make a difference. He gets motivated to make little things right and be a superhero every day. Even if it means switching off one lamp while leaving the room. When it comes to resource conservation in this phase of overconsumption, it happens when we create lasting behavioral changes among individuals for common wellbeing.

53346

**Employing English Picturebooks in Classroom Teaching: Taking a Suburban Area in Mainland China as the Study Context**

Jinglan Chen, Xiamen University, China

Nowadays, the application of English picturebook in childhood English education has generated more and more attention among Chinese researchers, educators, and parents. A growing number of them have started to employ English picturebook as a tool in childhood English education. However, research on the classroom use of English picturebooks for young Chinese children's English learning is still very much in its infancy, especially in suburban area of mainland China where parents are mainly from working class. This study aims to examine whether children's picturebooks are effective to young English learners' language growth in suburban area of China through the methods of action research. By integrating children picturebooks into English teaching, this study recruit 4 eight-year-old students who have not been formally learned English before. Findings indicate that by incorporating picturebooks with textbook in classroom teaching, students' English proficiency levels have been obviously improved. Reports from students, parents and teachers' comments demonstrate that this pedagogical innovation is accepted and beneficial. This paper also offers instructive implications for practitioners and other stakeholders in areas where educational resources are relatively scarce, collaborative effort should be devoted to promote increasing opportunity to get access to English picturebooks for EL students. In conclusion, English picturebooks are suitable for English language learners in the suburban area of China.

## Saturday Session III: 13:10-14:25

Room: *To be Announced in Final Schedule*

Session Topic: Education & Difference

Session Chair: *To be Announced in Final Schedule*

**52997**

### **The Heart of Teaching in a High Progress Class**

Hui Min Kwok, Academy of Singapore Teachers, Singapore

Students in Singapore take on their first National examination at the age of 12 - Primary School Leaving Examination (PSLE). Their results from the PSLE determine the Secondary School that they can attend. Hence, Primary 6 students spend a large part of the last 2 years of their Primary school education, focusing on scoring well for the PSLE. This is even more so for students in high progress classes who spend mindless hours on practice papers and tuition classes, resulting in undue stress in young learners. Often, they see their peers as competitors who would challenge their standing in the secondary school of their choice. This workshop takes participants through a journey of how a Singapore teacher preps her graduating classes, the top class in the school to look beyond the PSLE, creating an environment in which they desire to learn beyond the curriculum requirements, developing a sense of awareness of themselves and those around them, their place in society and a genuine love for learning that will go beyond a result that seemingly 'defines' them. Participants will see how the teacher works with both the parents of the students and the students themselves to redefine the meaning of academic excellence.

**54052**

### **Gifted Education, Learning Disabilities and Agenda-2030**

Sukaina Ishrat, Mombusho Scholars Association of India, India

Lewis Terman (1877-1956), best known for his thought-provoking study "Genetic studies of Genius" on gifted children had concluded that those with exceptional intelligence also needed exceptional schooling. In fact, gifted children with specific learning disabilities are the most neglected segment of student community. Teachers and other stakeholders often overlook the signs of intellectual giftedness and focus attention on other deficits. The paper explores the causes of obvious talent of gifted children not being realised and current policies/practices with regard to defining, identifying, educating and creating an awareness about this unique sub-group of students who possess both superior intellectual ability and specific learning problems. Gifted students with learning difficulties are bright, sensitive and acutely aware of their difficulties in learning such as inability to master basic spelling or reading skills, lack of attention in class but they may demonstrate exceptional analytical/creative abilities and sophisticated problem-solving skills. Assessing such potential in young children needs a wide range of information from IQ tests, diagnostic achievement tests, parent interviews and test of aptitude/creativity etc. The paper points out that adequate research, awareness and special needs of this segment of students has been very limited mainly in developing countries. It calls for timely intervention at appropriate level to avoid great loss of intellectual potentials of such gifted students as an ongoing process towards successful achievement of Global Development Agenda-2030 as adopted by UN General Assembly.

**52010**

### **Challenges of Creativity-based International STEAM Camps to Inspire and Motivate Gifted Students**

Piroonrut Poonyalikit, National Science and Technology Development Agency (NSTDA), Thailand

Sopida Pananusorn, National Science and Technology Development Agency (NSTDA), Thailand

Pankamon Sornsuwan, National Science and Technology Development Agency (NSTDA), Thailand

Akekalak Tungrattanaavee, National Science and Technology Development Agency (NSTDA), Thailand



NSTDA is the national science and technology research center in Thailand. One of its missions is to develop and prepare competent human resources in science, technology, engineering, art, and mathematics (STEAM). Organizing STEAM camps for gifted students are among our highlighted activities. Gifted students have the highest potential to become innovators in the future if we nurture them properly. We engage and encourage them to express their curiosity, creativity and talents in STEAM. Each year, we organize several national camps and a few international camps. One of camps we organized was at the 15th Asia Pacific Conference on Giftedness: APCG2018 Youth Camp on the theme "Inspiration, Motivation, and Creativity: Leading the way to Giftedness". Keys to our success in this APCG2018 Youth Camp (STEAM camp) were integration of fun, hands-on, open-ended, and challenging problems in a friendly and non-judgmental learning environment. There were two types of sessions: plenary for all participants, and special activities allowing participants to pick and choose activities that suited their individual interests. Each participant was able to select one session out of six break-out sessions. Examples of activities included Creativity Gym, Create Art by Applying Math, Design Thinking for Kids, and Smart Entrepreneur. Results from the survey show that the STEAM camp encouraged and developed creativity skills. Overall, the participants' satisfactions score was 3.27 of 4.00 (Excellent level). Furthermore, the STEAM camp had motivated students to have positive attitudes in science, technology, engineering, art, and math, showed by the top score of satisfactions of the Creative Gym activity which got 3.50 of 4.00 (Excellent level). Challenges in running STEAM camps for gifted children from multi-cultural background and covering a wide range of age groups will be presented and discussed.

## Saturday Session IV: 14:40-16:20

Room: *To be Announced in Final Schedule*

Session Topic: Assessment

Session Chair: *To be Announced in Final Schedule*

**54389**

### **The Extent of Test-wiseness and the Level of Proficiency of the Education Students in St. Mary's College of Tagum Inc.**

Gina Oracion, St. Mary's College of Tagum Inc., Philippines

Perla Padro, St. Mary's College of Tagum Inc., Philippines

The study focused primarily on the extent of test-wiseness and the level of proficiency of the third year education students of St. Mary's College of Tagum Inc., Tagum City. A descriptive-correlative method was used and the study utilized both the standardized and teachers- made questionnaires for the independent and dependent variables respectively. Appropriate statistical tools were employed in gathering the data needed. Universal sampling was utilized in determining the respondents who were all the incoming third-year Bachelor of Secondary Education students. The extent of students' test-wiseness had a mean percentile rating of 62% while the level of students' proficiency had a mean percentile rating of 55.10%. Based from the computation, the r-value of 0.544 indicates that the linear relationship between the extent of test-wiseness and the level of students' proficiency has a moderate positive linear correlation. The coefficient of determination of  $r^2=0.2959$  means that only 29.59% of the variation in the students' proficiency could be attributed to the variation in the students' test-wiseness. The rest (70.41%) is chance variation. This means that there is a significant relationship between the extent of test-wiseness and the level of proficiency among the third-year education students of St. Mary's College of Tagum Inc. The findings of the study provided essential and relevant data that can initiate relative changes especially in the field of testing and classroom assessment. Significant recommendations were offered to the different stakeholders in the academe with the hope that immediate and concurrent actions will be done in the light of the results and findings of the study.

**54528**

### **Rasch Model Measurement Advantages for Assessing via Tests and Surveys: Independence and Interdependence of Parameter Estimations**

Phillip Rowles, Tokyo University of Science, Japan

Rasch model measurement offers many advantages to educators conducting assessments using tests and surveys. The foundation stone of all useful and meaningful measurement is objectivity. Constructing measures by applying the Rasch model allows for 'specific objectivity'. Specific objectivity refers to when the comparing of persons is independent of the test or survey items administered. In parallel, it also refers to when the comparing of items is independent of which persons were administered the instrument. It does this by separating responses into two parameters: person ability measures and item difficulty calibrations. From these, parameter estimates may be calculated. Ordinal-level data in the form of raw scores can be transformed into interval-level data in the form of linear measures and calibrations. This mathematical transformation uses a natural logarithm to calculate success-to-failure odds in logarithm odds units (logits). After person measures and item calibrations have been constructed independently and checked for quality control, they are located either side of an incremental scale. At this stage, estimate interdependence may then be truly visualized and realized. Inferences may be made based on the differences between the locations of person ability measures and item difficulty calibrations. As the future is uncertain, Rasch model probabilistic measurement is a useful window into the future. These inferences are liberating and essential for educators who want to develop their assessment literacy skills for professional development. Therefore,

the combination of both independent and interdependent parameter estimations is a crucial and profound tool for educational assessment success.

**52850**

**Innovative Alignment Among the Cornerstones of Teaching and Learning: Assessment, Curriculum, and Delivery in Multi-Campus Institutions**

Nickie Christensen, Higher Colleges of Technology, United Arab Emirates

Mohamad Saoud, Higher Colleges of Technology, United Arab Emirates

Assessment should be a fundamental aspect of curriculum design and development that is intrinsic to teaching and learning, rather than a footnote. Indeed, alignment between assessment, curriculum, and instructional delivery is essential for effective educational outcomes. Such alignment is also a critical focus of higher educational accrediting bodies, both in initial and renewal accreditation. This presentation will describe the design and implementation of a triangulated alignment system at a multi-campus federal institute of higher education in the UAE. This system of alignment has two primary purposes: (1) to ensure coordination between these three integral areas for the benefit of faculty and students, and (2) to satisfy accreditation requirements for multi-campus delivery of equivalent educational experiences and achievement of identical learning outcomes. Alignment reflects the degree to which institutional expectations (curriculum), instructional delivery and student assessments correspond to guide student learning. In the context of this presentation, institutional expectations are reflected in program and course learning outcomes, an area of particular interest to accrediting bodies worldwide. The alignment system described in this session ensures that such learning outcomes are not merely words on paper, but are connected to classroom delivery and assessment systems. By following this approach, both equity and transparency are augmented at the student and program levels.

**53248**

**Implementation of Certainty/Confidence Based Marking (CBM) in Clinical Science Units at Central Queensland University, Australia**

Henrik Pallos, Central Queensland University, Australia

In the clinical environment, it is important to be aware of gaps in knowledge as they may contribute to clinical errors, including misdiagnosis and underdiagnosis. While multiple choice question (MCQ) based assessments have high reliability, they cannot distinguish between one who knows the answer confidently from one who has guessed their answer. Though students may have obtained the same test score, their clinical performance can vary widely. In Certainty/Confidence Based Marking (CBM) quizzes, students are asked to rate their level of confidence in their answer. The final score is dependent on the combination of whether the answer is correct or incorrect and how confident students are in their answer. CBM allows a more accurate understanding of student performance, whether their responses are based on guessing or sound knowledge. From 2016, the clinical science units at Central Queensland University, Australia implemented CBM as one of the formative assessments in a conditional step-wise access to summative assessments in order to improve students' metacognitive skills. In my presentation, I will introduce CBM and its implementation in these clinical science units, the benefits and challenges.

## Saturday Session IV: 14:40-16:20

Room: *To be Announced in Final Schedule*

Session Topic: Quality Assurance & Accountability

Session Chair: *To be Announced in Final Schedule*

### 53055

#### **Proposed Quality Assurance Mechanisms for School Development in the Unified Schools of the Archdiocese of Lipa (USAL)**

Randy Baja, Sta. Teresa College, Philippines

Quality Assurance for school development is a process of monitoring, assessing, evaluating and reporting objectively based on agreed quality standards, all aspects of school life to ensure that acceptable standards are attained, maintained and improved upon continually. This study delved on the quality assurance practices in the Unified Schools of the Archdiocese of Lipa (USAL), Province of Batangas. It aimed at assessing the schools' performance on trust and shared accountability; opportunities to support innovation in schools; shared understanding and dialogue among stakeholders; network to support development; and developing a balanced view of school development. To achieve the fundamental purpose of this research, the descriptive method was utilized. The study made use of 10 schools with 100 respondents. One of the reasons for the slow development of and resistance to QA in school is that academics are, of course, trained to ask questions, to be skeptical, if not challenging. More and more, despite the reluctance of academics to accept the fact, students are becoming customers and will be looking for 'value for money'. In this context of international competition, quality assurance may well prove to be much more 'market orientated'. Quality Assurance processes and practices are dynamic and provide the needed guidance and support to schools for consistent improvement in learning outcomes. In this study, therefore, it is more important for an organization to be thinking actively and creatively about what it is trying to achieve, than to put its energy into complying with the standards of an external body.

### 54541

#### **Technology-supported Guidance to Increase Quality, Flexibility and Efficiency in Clinical Practice in Nursing Education**

Jaroslav Zlamal, Lovisenberg Diaconal University College, Norway

Edith Roth Gjevjon, Lovisenberg Diaconal University College, Norway

Andrea Aparecida Goncalves Nes, Lovisenberg Diaconal University College, Norway

Clinical practice is one of the major components of nursing education. It makes up fifty percent of the total amount of study time and is a cooperative effort between educational and clinical institutions. This joint effort to educate and supervise nursing students is challenging. Communication among students, supervisors and teachers is often limited. The quality of supervision may vary according to each supervisor's attitude, amount of experience and clinical expertise. The proposed research project's aim is to test a guidance model supported by technology. Its goals are improving communication between related parties, allowing students to follow their study progression and enabling supervisors and teachers to provide better student support and follow-up. The guidance model is based on three main elements: electronic reports and feedback, virtual practice group meetings and digital assessment delivered by a smartphone/tablet app (under development). To examine the guidance model's effect, a randomized controlled trial will be performed among undergraduate nursing students, with critical thinking as the primary outcome and nursing competence as the secondary outcome. Critical thinking will be measured by the California Critical Thinking Skills Test (CCTST), and nursing competence will be measured by the Nurse Competence Scale (NCS).

52894

**Accountability Perception of School Leaders and Teachers on Students' Academic Performance: A Mixed Methods Study**

Hebron Amos Bernabe, University of Santo Tomas, Philippines

Rodrigo Litao, University of Santo Tomas, Philippines

Accountability in education deals with the process of upholding school leaders (SL) and teachers accountable on students' academic performance (SAP). It has received considerable attention in educational leadership literature, however, little emphasis has been placed on accountability perception (AP) of SL and teachers on SAP. Thus, using the mixed methods approach, mainly purports to examine the relationship between the SAP and accountability perceptions of SL and teachers, and to describe the respondents' experiences regarding the phenomenon. Sixty SL and 172 teachers ( $n = 232$ ) from K-12 private schools in Quezon City were purposively selected to answer the SLAPT and TAPT researchers-made questionnaires. Additionally, three SL and 11 teachers were recruited to undergo semi-structured interviews that enabled researchers to surface four interesting themes. Interestingly, a very high level of AP on SAP among respondents was revealed via mean scores and analysis of their articulations showed common insights that they are accountable on SAP, subordinates or leaders. But, results of Pearson's correlations indicated no significant relationship between the level of SAP and AP of (a) SL and (b) teachers. On the other hand, the correlation between the AP of SL and teachers demonstrated statistically significant relationship. On the whole, accountability of SL and teachers are evident, but the level of SAP appears to be predicted by other factors and is not necessarily dependent on respondents' AP. Moreover, clear accountability of SL to teachers enables teachers to become more accountable on their leaders and outcomes of instruction.

54116

**Reimagining the Provision of Quality Higher Education by Institutions in Durban Metropolitan Area, KwaZulu-Natal**

Phumelele Zakwe, University of KwaZulu-Natal, South Africa

This paper examines the different typologies and understandings of the concept of quality, the factors that affect the provision of quality higher education, and the important quality of leadership and management that is required to strengthen and enhance this provision in tertiary institutions located in the Durban Metropolitan area of KwaZulu-Natal. The findings suggest that quality is complex and a serious challenge to higher education institutions. There are variations in the perceptions of what quality means and what constitutes leadership quality dimensions that could strengthen the provision of quality higher education in the institutions of higher education. There is a number of factors that impact on the provision of quality higher education, and these include: inadequacy of internal quality standards; limited understanding of the policies and procedures; lack or limited availability of financial resources; poor quality teaching materials; poor staffing; poor attitudes of students towards learning; non-conducive teaching and learning infrastructure; as well as poor inclusivity of vulnerable social groups in the society. The paper concludes that there is a need for a balance between the internal-external dichotomy of quality and its assurance in the institutions of higher education through strategies that would overcome the impediments to achieving quality outcomes.

## Saturday Session IV: 14:40-16:20

Room: *To be Announced in Final Schedule*

Session Topic: Language Learning - Speaking

Session Chair: *To be Announced in Final Schedule*

**52040**

### **An Investigation on the Use of Utterance Verbs by Turkish ELT Majors: The Case of ‘Say, Tell, Speak and Talk’**

Revan Serpil, Anadolu University, Turkey

Synonym or near synonyms may have different denotational meanings, and these differences create variations in collocational or prosodic behaviors of the verbs (Xiao & McEnery, 2006). From a language learning perspective, acquiring these collocational or prosodic differences may form an important part of native-like competency. Therefore, this study focuses on Turkish L2 learners’ receptive knowledge or target verb+noun collocations related to utterance verbs to test the differences between four words whose collocational or translation equivalents may change in Turkish. The participants of the study were 186 undergraduate learning majoring in English Language Department. 95 of these learners were the 1st and 91 of them were the 4th year students. For data collection, a collocation test with 12 multiple choice items was used. The data were analyzed via descriptive and inferential statistics as well as qualitative analysis. The results showed there was no statistical difference between the two groups of learners’ receptive knowledge of the target items, yet the individual items showed differences. The analysis also revealed differences in learners’ awareness of the target items.

**54305**

### **Needs of Air Force Cadets in an English Speaking Course**

Wanicha Siraranghom, Navaminda Kasatriyadhiraj Royal Air Force academy, Thailand

**Abstract:** This study investigated the needs of air force cadets in an English speaking course. The participants were 362 cadets of five classes (years 1-5). The instruments used to collect data in this study were questionnaires and a semi-structured interview. The results revealed that the cadets needed to study with a teacher who is less stressful and doesn’t focus too much on scores and textbooks. They needed a teacher who can apply authentic materials to use in the classroom. They also need to learn English conversation in everyday life, speaking in military contexts, and speaking for presentation and for attending international conferences. The interview results demonstrated that the cadets needed to study with a good-natured teacher and provide equal chances for everyone to speak. Adequate time for practicing was also needed. Authentic materials were considered crucial by the cadets as they can draw the cadets’ attention and make an English speaking class more interesting.

**52883**

### **A Step-by-Step Approach to Fixing Fossilized Language Errors**

Josh MacPherson, TST Prep, United States

Fossilized pronunciation and spoken grammar errors are a challenge for teachers to address and for students to improve on, especially independent learners at the intermediate and advanced levels. Individual language learners may even know the correct pronunciation and grammar, but can not produce it correctly in spontaneous speech. This is an even more serious dilemma for TOEFL takers who need to acquire a specific score in the speaking section of the exam. As the head instructor at TST Prep, a TOEFL-focused school, Josh MacPherson has had to confront the challenge of fixing fossilized mistakes, an aspect of language education some researchers deem impossible to change. After many iterations, the TST Prep

team has designed a specific activity to help motivated language learners identify, isolate, and reduce their fossilized mistakes. This method has not been tested as a formalized research study, but instead in the class with independent students who need their TOEFL Speaking test score to improve in order to become a licensed pharmacist, nurse, or teacher in the US. The presentation will include testimonials from students and anecdotal observations, along with a guided walkthrough of how this activity works and why it helps reduce fossilized errors.

**54431**

**Let's Work it Out: Using Cooperative Learning to Build Speaking Fluency**

Shiao-Wei Chu, National Chin-Yi University of Technology, Taiwan

Chad Eller, Providence University, Taiwan

Most English as a foreign language (EFL) learners in college, no matter how long they have learned English at schools, often find it challenging to develop and improve their oral communication proficiency in English because of the lack of authentic English speaking environments. Also, many studies indicated that in Asian countries the development of EFL students' English-speaking skill has often been neglected due to large class sizes, teacher-centered instruction, and exam-oriented teaching approaches. As a result, while speaking English, the majority of EFL students feel anxious and uncomfortable, worry about making mistakes, fear criticism or losing face, have poor thinking habits and low motivation to express themselves, and experience first-language interference. Cooperative learning addresses these challenges by giving students opportunities to work in groups to complete various assigned tasks and problems. The purpose of this study was to investigate cooperative learning as a strategy for raising EFL college students' self-confidence, motivation, and fluency while interacting in English. 25 Taiwanese university students participated in this study. At the end of the study, a questionnaire survey was conducted, and the final reflection documents were reviewed and analyzed. The results indicated that cooperative learning instruction during English speaking lessons created a significantly positive effect on both student-student interaction and student-teacher interaction. Participants viewed this learning process as an active and effective way to support them to share knowledge as well as boost self-confidence while speaking English. That is, in a cooperative learning environment, students became more interdependent, cooperative and autonomous language learners.



## Saturday Session IV: 14:40-16:20

Room: *To be Announced in Final Schedule*

Session Topic: Professional Development: School Staff

Session Chair: *To be Announced in Final Schedule*

**53874**

### **Job Satisfaction and Employee Creativity and Innovation for Student Affairs Practitioners**

Leandro Loyola, De La Salle University, Philippines

Student affairs and services play an important role in the success of educational institutions in carrying out students' holistic development and as a support to academics in order to facilitate learning. The student affairs administrators and practitioners contribute a lot in ensuring the delivery of dynamic programs and services that are responsive to the needs of the students. Because of this, the student affairs practitioners are expected to be creative and innovative in the field in order to provide and assure the quality of programs and services that addresses the ever-changing needs of their clientele. This paper examined the relationship of job satisfaction and employee innovation. The descriptive-correlational design was employed to describe the relationship between the variables. The data were collected using validated pre-existing survey instruments. The data gathered was analyzed using Chi-Square test of independence and Pearson product moment correlation. The methods confirmed that there is a strong relationship between the variables job satisfaction and employee creativity/innovation as perceived by the respondent student affairs practitioners at the Department of Student Life of the De La Salle-College of Saint Benilde.

**53425**

### **Assessing Happiness in the Workplace at La Consolacion University Philippines**

Enrico Rosales, La Consolacion University Philippines, Philippines

Happiness is defined as an emotional word used to summarize the quality of experiences in everyday life. This basically assess whether a person feels good through doing well and receiving recognition from work and other similar actions. It is perceived that happiness at work and positive relationships within a workplace generated three positive emotions such as enthusiasm, interest, and contentment. As such, studies proved that when a worker is happy, they become more effective in working towards common goal, thus increasing output by at least 12%. In this study, the level of happiness of the employee of La Consolacion University Philippines (LCUP) was investigated through survey analysis using the Oxford happiness scale. Results showed that out of 232 respondents 51.30% were pretty happy, followed by 28.02% who were considered to be very happy and 19.83% were satisfied in working in the University. In addition, this paper also discloses that compensation together with their nature of work and gender greatly affect the level of happiness of a certain individual. This study could serve as a basis to the administration to further nurture their employees by reinforcing and valuing the role of the individual through rewards or incentives in order to boost their productivity generating a good and happy workplace environment.

**53395**

### **Improving Employee Retention Strategies in the Institutions of Higher Education in Durban Metropolitan Area**

Phumelele Zakwe, University of KwaZulu-Natal, South Africa

This paper draws from a study that examines the importance of employee retention in the Institutions of Higher education in Durban Metropolitan Area. The study further investigates significances for improving employee retention strategies in the Institutions of Higher education in Durban Metropolitan Area. A phenomenological research design was employed. Critical research questions were: Why is employee



retention important in the institutions of higher education? What are the factors that affect employee retention in the institutions of higher education? What are the strategies for employee retention in the institutions of higher education in the Durban Metropolitan Area? In-depth interviews were conducted with Deans, Operations Managers and Employees in higher education institutions in Durban Metro which includes University of KwaZulu-Natal, Mangosuthu University of Technology and Durban University of Technology. The preliminary findings of the study suggest that employee retention is a major challenge faced by the employees in retaining the hired employees in its organization. Employees are the most dynamic resources of an organization. Employees' significance to organizations calls for not only the need to attract the best talents but also the necessity to retain them for a long term. The biggest challenge that organizations are facing today is not only managing these resources but also retaining them. The study recommends that Universities today should take great care in retaining its valuable employees and university leaders should effectively implement employee retention strategies. The paper concludes that managing and retaining employees' is an important fundamental aspect of achieving competitive advantage among the organizations.

**53738**

**Teachers' Job Satisfaction in Relation to Teaching Performances and Pupils' Academic Achievement**

Ulysses Yu, Philippine Normal University and St. Stephen's High School, Philippines

Felina Young, College of Holy Spirit, Philippines

– Statement of the Problem: Teacher Job Satisfaction has a positive impact that promotes better teaching quality and high education quality. And it is not merely due to monetary considerations, but to other motivational factors. The purpose of this study was to conduct an in-depth study of the teacher's level of job satisfaction in the selected variables. More specifically, to answer the following: 1. What is the Teachers' Level of Satisfaction in terms of salary, fringe benefits, organizational climate, working environment, and career advancement; 2. What is the Teacher's Level of Performance Ratings? 3. What is the Pupils' Level of Academic Achievement 4. What recommendations can help increase the level of job satisfaction of the teachers? – Methodology: To answer these problems, questionnaire were distributed to 19 Grade IV teachers. Furthermore, 831 Pupils' Academic Achievement were evaluated. To identify the level of job satisfaction, the weighted mean was computed. To determine the differences in the ranking, Kruskal Wallis Analysis of Variance was used. To determine the relationship between teacher's performance rating and job satisfaction and that of Pupils' Academic Achievement, Pearson Correlation were used. – Summary of Findings: 1. For Level of Teachers' Job Satisfaction, respondents were most satisfied with fringe benefits; 2. Most respondents got the mark of Satisfactory for level of performance ratings; 3. For the level of pupils' academic achievement, predominantly got Satisfactory;

## Saturday Session IV: 14:40-16:20

Room: *To be Announced in Final Schedule*

Session Topic: Education Policy: Operating Educational Institutions

Session Chair: *To be Announced in Final Schedule*

**54233**

### **Customer Relationship Management in an Educational Institution in the Philippines**

Helen Rigor, St. Paul University Quezon City, Philippines

Antoniette Lacerna, St. Paul University Quezon City, Philippines

Marie Antonette Ocampo, St. Paul University Quezon City, Philippines

Customer Relationship Management is the process of carefully managing detailed information about individual customers and all customer “touch points” to maximize loyalty. A touch point is any occasion on which a customer encounters the brand and product- from actual experience to personal or mass communication to casual observation (Anabila & Awunyo-Vitor, 2013). Universities and colleges provide education service which requires high customer contact with all the sensitivities that go with it. Marketing in general refers to the concept of choosing the target market and get, keep and grow customer through creating, delivering, and communicating customer value (Kotler, 2012). It is further stated that attracting a new customer is 5 times costlier than pleasing an existing one. Customer retention is more important than customer attraction. In satisfying customer needs, service performance must be able to attain, or better, exceed the customer expectations. This condition is requisite in building customer loyalty—that is patronizing or “staying in” the school and up to the future in whatever circumstances. This study is undertaken to determine the current status of the customer relationship management practices of a Philippine Catholic Higher Education University and its impact on student and parent satisfaction and retention. Primary respondents are the Junior, Senior High School and college students of the University for academic year 2019-2020 and their parents. Recommendations on customer service, marketing, and internal processes are given to address the gap between customer expectations and customers’ actual experience.

**52196**

### **Boarding College Strategy Management in College of Theology Sangkakala Kopeng, District Getasan**

Noveliza Tepy, Pelita Harapan University, Indonesia

The objectives of this research were to: (1) Determine and analyze the boarding management strategies that have been used by Sekolah Tinggi Theologi (College Of Theology) Sangkakala; (2) to analyze the root problems in the management of a boarding college in Sekolah Tinggi Theologi (College Of Theology) Sangkakala; (3) Design and produce strategies that can be implemented by Sekolah Tinggi Theologi (College Of Theology) Sangkakala in the management of a boarding high school. Design of this research is the development, but in this study is limited to the fifth stage, namely the revision of product design, where the product that produced a strategic plan for the management of the boarding college at Sekolah Tinggi Theologi (College Of Theology) Sangkakala Kopeng. Data analysis technique used is the analysis of fishbone. Data collection techniques are observation, interviews, document studies, and FGD. Meanwhile, data validation was done by using triangulasi source. The results of this analysis, a strategy that is based on the analysis fishbone, includes four factors: (1) curriculum management strategies and coaching; (2) management strategies of learners; (3) management strategies educators; and (4) strategies in the policy leader. Furthermore, the foundations, the chairman (rector), lecturers and other staff are expected to optimize the implementation of the strategic plan that has been prepared.

**53001****The Impact of Landmark Court Cases on Funding in American Public Education Systems: Law and the Financial Structure of Educational Institutions**

Nathaniel Edwards, Yamaguchi National University, Japan

Court rulings and legal precedents can significantly influence educational policy, the fundamental financial structure of public schools, and the educational funding process at the local, regional, and national levels of education systems. Landmark court cases involving different stakeholders, employing various administrative concepts and a wide range of legal strategies, have had a significant impact on contemporary educational funding methods and on the creation of educational programs and new types of schools (Odden & Picus, 2004). This presentation examines the close interdependence of the legal and education systems and the outcomes of five landmark court cases which continue to influence current legislation at the local, state, and national levels of education. Student performance and learning outcomes related to funding, the trend towards privatization in education, and the planning of financial models which are appropriate to the contemporary needs and requirements of diverse student populations and American schools are also addressed. Despite increases in the total amount of funding for education in the United States and new legislation designed to address and correct educational funding imbalances, some differences continue to exist in local and state funding for education (Coon, 1999). Differences in funding between some school districts and systems persist despite decades of discussion, research, and various legal strategies and challenges in the legal system.

**53941****Development of a Rational Compensation System for School Directors in Taiwan**

Hsuan-Fu Ho, National Chiayi University, Taiwan

School directors play an extremely essential role of assisting the principal to effectively carrying out school missions. In Taiwan, school principals select their directors from a pool of teachers who are willing to assume the director positions. Nevertheless, school teachers are lacking motivations to become directors in the preceding years because the burden and stress of school directors has rapidly accelerated without commensurate compensations. The newest pension system initiated by the Taiwan government in 2019 has further deteriorated this situation, and the shabby monthly pay of school directors is only approximately 65 dollars higher than their homeroom teacher counterparts, resulting in a dramatic shrink of the already meager school director candidate pool. Many principals lamented and argued that they cannot find enough teachers to assume the school director positions for the coming school year, and it is crucial for the government to immediately revamp the school educator compensation system. Sponsored by the Ministry of Science and Technology of Taiwan, this research is aiming to develop a comprehensive compensation system for school directors that take into account of the following compensation concerns: political feasibility, economic feasibility, social feasibility, and technical feasibility. In this presentation, we will first identify the rationales of a sound school director compensation system; thereafter, we will compare the school director (administrator) compensation systems among major countries in the world; and finally, we are going to discuss what policies and tasks should be undertaken to improve the current school director compensation system in Taiwan.

## Saturday Session IV: 14:40-16:20

Room: *To be Announced in Final Schedule*

Session Topic: Science Education

Session Chair: *To be Announced in Final Schedule*

**52927**

### **Process-oriented Guided Inquiry Lessons in Grade 10 Biology**

Ma. Sharlyn Navia, Bicol University Graduate School, Philippines

This descriptive developmental study determined the effect of Process-Oriented Guided Inquiry Lessons in Biology to the Grade 10 students' performance. It focused on the developed Process-Oriented Guided Inquiry Lessons, jurors' evaluation of the Process-Oriented Guided Inquiry Lessons in terms of competency-based, process skills involved, inquiry-based and cooperative learning strategy, and its effect on students' conceptual understanding, process skills and metacognitive awareness. The respondents were Grade 10 students of Taysan Resettlement Integrated School, Legazpi City, SY 2018-2019. The researcher employed a pre-experimental research design particularly a pretest-posttest design. Both qualitative and quantitative methods were utilized in analyzing the results in the lesson implementation. The qualitative data were obtained from the students' journals and remarks of the teacher-observers in the affective process skills observation sheets. In the quantitative method, data were obtained from the jurors' evaluation on the developed Process-Oriented Guided Inquiry Lessons for Grade 10 Biology, pretest and posttest scores and the students' response in the metacognitive awareness inventory. Mean gain and t-test were used for statistical rigors. Results show that the six Process-Oriented Guided Inquiry Lessons were deemed excellent by the jurors. This means that the jurors were convinced that developed Process-Oriented Guided Inquiry Lessons were of high quality and the four features were evident and commendable in the developed lessons. There were improvements in the conceptual understanding, process skills and metacognitive awareness of students supported by positive mean gain scores and the positive remarks given by the teacher-observers on student's affective process skills during the conduct of the study.

**54228**

### **Possibilities of Liberal Arts and STEAM Education**

Aki Yamada, Tamagawa University, Japan

The modern era has presented rapid technological advances in areas such as communication, Information Technology, and Artificial Intelligence, which have become heavily integrated into society and our conception of everyday life. With this in mind, visions for the development of STEM education and technologically proficient workforces are being prioritized by governments and educational institutions world-wide. Increasing interdisciplinary study and a STEAM approach of re-integrating aspects of the arts and sciences, can help overcome divisions between academic disciplines and restore the integrated nature of scholarship. The Japanese government envisions the next societal revolution as Society 5.0, an era where advanced technologies and service platforms integrate with and empower individuals in a human-based society. This paper will explain how STEAM education is implemented in Japan its relationship to the Cabinet Office of Japan's vision for Society 5.0, and the challenges and next steps for STEAM education. This research is guided by evidence from interviews with faculty and students in the STEAM programs in Japan, used to gather the firsthand experiences of working in the intersection between technical engineering fields and the arts. Specifically, three key points will be examined: 1) The effects and value of interdisciplinary education, 2) Important program and curriculum considerations in STEAM education 3) The challenges of implementing effective STEAM education. Through these findings, this paper will provide a foundation to understand where Japan currently stands in regard to interdisciplinary STEAM

education, the effects and value of liberal arts education, and how Japan can continue to prepare for the Society 5.0 era.

**53339**

**Changes in Teachers' Understandings of STEM Education in the Kingdom of Saudi Arabia**

Kathy Smith, Monash University, Australia

Greg Lancaster, Monash University, Australia

Lucas Johnson, Monash University, Australia

In 2016, the Kingdom of Saudi Arabia (KSA) developed a bold 'Vision 2030' plan that seeks to establish a strong foundation for future economic prosperity based on a transformational shift from the current natural resource-based economy to a knowledge economy (Wiseman, Abdelfattah and Almassaad, 2016). In addressing these reforms, the KSA Ministry of Education has engaged a number of global universities to design and implement teacher professional learning for KSA educators to build new knowledge and skills needed to innovate the traditional curriculum. The Faculty of Education, Monash University, is currently engaged in this initiative, providing a 44 week program exploring technologies and pedagogies of STEM education and the implications for KSA schools. The cohort of 25 technology, mathematics and science Saudi educators will experience many STEM Learning opportunities, including 17 weeks immersion in STEM education classes in Australian schools. The program is intended to positively impact teacher professional growth, evidenced by a change in participant thinking about understandings of STEM education. The intensive nature and duration of the professional learning program presents a unique opportunity to map changes in thinking. This research seeks to capture such change using a mixed methods approach (anonymous surveys and regular focus group meetings). Of particular interest are the development of personal confidence with STEM teaching and the changing understanding of the interdisciplinary nature of the subject. Initial survey data reveals the vast majority of the KSA educators report a limited understanding of STEM education and low levels of self-confidence in teaching STEM classes.

**53639**

**Give Swirl a Whirl: A Mixed-method Analysis on Swirl Approach to Teach Applied Statistics in a Biology Student Cohort**

Wilson Wen Bin Goh, Nanyang Technological University, Singapore

Felicia Ngan, Nanyang Technological University, Singapore

Chun Chau Sze, Nanyang Technological University, Singapore

To equip biology students with data literacy skills, this study investigates the utility of retooling the electronic programming tutorial system, Swirl for teaching applied statistics in a cohort of biology students in a 2-phased study: Phase 1 involved administration of tutorial-based course, pretest-posttest assessment and preliminary survey, while Phase 2 involved post-hoc survey and learning style analysis. The base teaching material, in both Swirl and paper-based forms received positive content evaluation amongst students and improved students' learning outcomes with significant learning gains and large effect sizes. While there is no evidence of greater learning gains in Swirl against the paper version, it does offer better palatability through its interactive and integrated programmatic components. We see Swirl's key value in early immersion of students in a formal programmatic environment while learning applied statistical theory simultaneously, and believe that this is essential for efficiently bridging practice-theory gaps for aspiring bio-data scientists.

## Saturday Session IV: 14:40-16:20

Room: *To be Announced in Final Schedule*

Session Topic: Student Autonomy

Session Chair: *To be Announced in Final Schedule*

**53074**

### **A Priming Experiment on the Effects of Letter Grades and Autonomy-support on Academic Motivation**

Mai Yasue, Quest University Canada, Canada

I-Chant Chiang, Independent Researcher, Canada

Kelsey Chamberlin, Independent Researcher, Canada

Here we used a survey-based priming experiment to explore the psychological effects of letter grades (ie. A, B, C to F) and autonomy-supportive teaching practices (eg. giving opportunities for choices, building trust between student and teacher). Much research in educational psychology has suggested that extrinsic motivators such as grades can “crowd-out” or thwart autonomous academic motivation and increase controlled academic motivation. In contrast, empirical research in Self-Determination Theory has suggested that autonomy-supportive teachers can enhance autonomous academic motivation and reduce controlled academic motivation. Thus we hypothesized that priming autonomy-support would reduce or buffer the adverse effect of grades on autonomous academic motivation. 392 participants at three universities were randomly sorted into three different study conditions (no-prime, grading prime, grading and autonomy-support prime). In the grading prime, students were asked questions about their grade point averages whereas in the autonomy-support prime students were asked items about autonomy-supportive teachers. Contrary to our predictions, priming students to think about grades had no effects on autonomous or controlled academic motivation. Furthermore, at one of the universities, priming students to think about autonomy-supportive teachers increased controlled academic motivation. The results of this study suggest that in at least one particular context, enhancing the salience of autonomy-supportive pedagogical techniques used by teachers can inadvertently create additional extrinsic social pressures on students. The results of this study point to the need to conduct more multi-institutional research on academic motivation to enhance understanding of the wide array of pedagogical factors that may affect academic motivation.

**53635**

### **PS2CLH: A Learning Factor Model for Enhancing Students' Ability to Control Their Achievement**

Arlindo Almada, London Metropolitan University, United Kingdom

Qicheng Yu, London Metropolitan University, United Kingdom

Preeti Patel, London Metropolitan University, United Kingdom

Numerous factors that influence students' academic performance involve issues beyond the individuals' control, such as national policies, government initiatives and university resources among many others. Even if students are aware of these factors, addressing them may be unfeasible. Identifying causes within students' control could both improve students' understanding of these factors as well as enabling students to independently deal with related issues. This paper proposes a student-controllable learning factor model that combines the perspectives of Psychology, Self-responsibility, Sociology, Communication, Learning and Health & wellbeing (PS2CLH). The proposed model used qualitative methods to identify underlying aspects affecting academic achievement and selected controllable factors. This research reports on the outcomes of the employment of the PS2CLH model to predict student performance. Initially, data is collected through a self-evaluative web-based questionnaire. Each student's past performance and factors affecting this are then quantified. This study reveals the impact of students' controllable factors on student achievement. The PS2CLH model test results indicated 94% accuracy of successful prediction of the student performance



based on the proposed PS2CLH model. The importance of “establishing and achieving personal goals” was higher than “stress”, “learning room” and “grammar and vocabulary” among other factors. This research raised participant students’ awareness of PS2CLH perspectives, which helped them manage factors affecting academic performance more effectively. Consequently, most of the students have enhanced their academic performance by addressing these critical factors. However, due to the limitations of the current sample data, the PS2CLH model will be further monitored for various applications.

**54558**

**What Affects Learning Outcomes of Thai Students?**

Dollaya Hirunyasiri, Sodsri-Saritwong Foundation, Thailand  
 Pinanong Hakard, Sodsri-Saridwongso Foundation, Thailand  
 Kongkiat Kespechara, Sodsri-Saritwong Foundation, Thailand  
 Suphanut Thattinaphanich, Sodsri-Saritwong Foundation, Thailand  
 Somying Saithanu, Sodsri-Saritwong Foundation, Thailand  
 Chonlada Sittitoon, Sodsri-Saritwong Foundation, Thailand  
 Apansarin Kanarat, Sodsri-Saritwong Foundation, Thailand

Based on the 70-20-10 Model of Learning and Development (70% of learning comes from experiences, 20% from social interactions and 10% from formal education) this paper examines how formal education affects Thai primary school students’ learning skills, specifically reading, thinking and writing. Data from Q-info (quality learning information system, collecting data from 45 schools in 6 provinces in Thailand) shows that the school size affects Read Think Write scores (Read Think Write, the annual national Thai standardized assessment exam). For example, most students from medium-sized schools received below-average exam scores; while most students from large-sized schools achieved above-average exam scores. However, when adding a factor of “amount of frontal classroom hours”, we found it had little correlation with students’ RTW scores. For example, students from large-sized schools with low classroom hours could outcompete students from large-sized schools with higher classroom hours. Or students from medium-sized schools with higher classroom hours received lower scores compared to students from large-sized schools with lower classroom hours. Therefore, what affects large-sized schools to outperform medium-sized schools is not the amount of frontal classroom hours. In conclusion, the amount of frontal (lecture-based) school hours is not the key factor for improving primary school students’ RTW skills. Therefore, other learning styles such as interactions with others and hands-on experiences should be considered.

**51529**

**Undergraduate Students’ Self-directed Learning with Video Lecture Records**

Nic Nistor, Ludwig-Maximilians-Universität München, Germany

For university students, coordinating study with earning money to support the study, and with private life is often a challenge. Video records of the lectures they need to attend provide students with a certain autonomy. However, their interdependence with educational technology requires specific self-directed learning (SDL) skills and learning strategies. This study was framed by the SDL concept, focusing on primary, control and supporting learning strategies, aiming to understand how students of a large German university use video lecture records for SDL and which learning strategies they apply. Interviews with undergraduate students of Educational Sciences revealed that video records were used to complement or to replace face-to-face lectures. Most frequently, students used a simple primary strategy, i.e., listening to the lectures and looking at the presentation in the same way as they would in the lecture hall. Few students used supporting strategies such as actively avoiding disturbances. Control strategies and more effective primary strategies (e.g., extracting essential information items and individually or collaboratively clarifying the relationships between them) were hardly used. There was no indication of collaborative SDL. In conclusion, few participants learned with video lecture records efficiently; providing students with a video lecture library and specialized technology was not sufficient. The interviews suggest that, and how, learning strategy training may help. For educational practice, an online training concept is proposed, including students’

self-observation and reflection on their applied learning strategies. Consequently, students should be able to choose strategies to more efficiently harness the educational technology potential.



## Saturday Session IV: 14:40-16:20

Room: *To be Announced in Final Schedule*

Session Topic: International Education

Session Chair: *To be Announced in Final Schedule*

**53277**

### **Brokers Behind International University Admission: An Investigation on the Role of Private Admission Agents in China**

Siyuan Feng, The University of Hong Kong, Hong Kong

International student mobility represents a fast-growing component of contemporary international tertiary education. Current literature has approached the research topic from diverse perspectives such as global academic movement, internationalisation of the curriculum, and campus diversity. However, the surge in international student mobility is not purely an educational phenomenon, and it also indicates a lucrative global market in exporting higher education as a merchantable service. Behind the booming market for international higher education, one phenomenon that raised the research attention in this study regards the use of private education agents in international admissions and beyond. Despite education agents' significant roles in facilitating international student mobility, insufficient research has been done in the literature to reveal the pattern and implications of education agents' roles in the host countries. This qualitative study studied education agents' roles in Chinese students' admissions to international universities as well as their educational and social implications. Building on data collected through multiple qualitative methods, the study focused on education agents' relationship with international higher education institutes and their approaches to assist students in admission. The analysis of this study also examined the implications of these characteristics have for equity and social justice within international higher education. Findings suggested that educational agents had significant influences on students' decisions in their application to international universities. The study also revealed hidden monetary connections between the agents and universities that indicated a possible conflict of interest in international higher education. The study also makes a few policy recommendations based on its findings.

**53603**

### **Adoption of Innovative Learning Management System for Quality Assurance of Educational Programs Delivered Transnationally**

Vinh Tran, UTS Insearch, Australia

The rise of transnational delivery of education programs, while providing numerous benefits to students, parents and institutions, has posed significant challenges as to how the quality of such programs are assured in terms of learning outcomes, curriculum content, assessment & instruction. The inherently complex nature of education experiences is amplified by the sophisticated and diverse environments where the programs are offered, academically and culturally. This presentation looks at the innovative use of a modern Learning Management System (LMS) to deliver an excellent student experience in these transnationally delivered educational programs where they are guaranteed to benefit from an international curriculum with opportunities for localised contents and experiences. The LMS also acts as an excellent medium of communication and collaboration between teaching staff across countries, facilitating sharing of best learning and teaching practices and greatly enhancing the instruction and moderation process, a cornerstone of any successful transnational programs. Real time analytics generated from the LMS about all aspects of the student online activities allows transparent and timely information about student progress in the programs, informing teaching staff of the appropriateness of their curriculum for the countries where the programs are offered and for the in-country providers to tailor their in-class activities and student support initiatives for the students in those programs. High level information is also available to academic managers

and school administrators for effective oversight of the delivery of the programs and make informed decisions accordingly.

**53513**

**Internationalization of Higher Education: Changes, Changes and More Changes**

John Hope, University of Auckland, New Zealand

The traditional face of the internationalization of higher education has been semester abroad movement, only limited by the cost. New threats such as terrorism, excessive nationalism and political issues have changed the face of internationalization. Internationalization at Home was a change suggested as a cost-free and safe replacement for travel abroad but has not replaced semester abroad internationalization. Full degree study in a foreign country, usually by a student from a less developed country travelling to a well-developed country, has also changed. Now previous source countries such as Malaysia and China have become destination countries for students from less well-developed countries. Social media ubiquity is another change. New forms of communication make virtual study of a degree in a foreign country possible and has opened the door to big business. Most recently, a further change is occurring where serious questions have been asked about the very nature of internationalization. It has been suggested that the internationalization of higher education has not been encouraged for the higher good, but for the high tuition fees paid by international students. A further recent change has been the notion that the internationalization of higher education has been the 21st century form of colonization, where developed countries impose their knowledge and culture on less developed countries. What change is next? This paper will create opportunities to learn from the past and speculate about the repurposing of higher education in an uncertain future.

**54090**

**Achieving Equivalence in Transnational Education: A Case Study in Crossing Complex Boundaries in Interdisciplinary Studies**

Bruce Berryman, RMIT University, Australia

Transnational Education has been growing at an exponential rate over recent years with universities extending their global reach through approaches ranging from partnerships to offshore campus arrangements. While the demand for TNE is expected to continue to develop, experience suggests that the opportunities offered by the globalization of higher education are counterbalanced by a number of challenges. One such challenge is the ability to deliver equivalent student outcomes in diverse cultural and contextual contexts. While streamlined approaches to curriculum delivery and compliance may mitigate institutional risk in some disciplines (e.g. business), other niche areas of study such as Media and Communications require more nuanced approaches. This paper is based on the experience of RMIT University and its interdisciplinary media and communication degree program, Professional Communication. First launched in 1992, the program is currently delivered at four sites in the Asia Pacific region: Melbourne, Ho Chi Minh City, Hanoi and Singapore. Using a retrospective case study approach, the paper explores how location (culture) and institutional relationships (context) impact on the TNE experience. More specifically, it identifies key challenges to successful TNE program development and delivery, as well as a series of enablers to navigating program complexity, including collaborative processes of program development, course design and equivalence, which improve both the staff and student experience.

## Saturday Session IV: 14:40-16:20

Room: *To be Announced in Final Schedule*

Session Topic: Lifelong & Online Education

Session Chair: *To be Announced in Final Schedule*

**54761**

### **Cultural Diversity and Lifelong Learning**

Olga Bombardelli, University Trento, Italy

This contribution deals with the role of lifelong learning for common development, focussing on the need of cultural diversity against mass homogenization for a sustainable future, rethinking open society. Lifelong learning is a big contribution for the improvement of competencies for personal, professional, and civic purposes in an interdependent world. Formal and informal learning are a changing factor, and that's why we need to accept, and support cultural diversity, despite the global influence of the mass media and the risk of 'unique thinking'. This text is organized in three parts: the challenges of our era in an interdependent world, and sustainable development as coping measure, the potential role of citizens for influencing decisions in a democratic societies in the internet era, the importance of cultural diversity for enhancing responsible civic behaviour of both individuals and groups or organizations, in order to foster human development for a sustainable future, and to improve public decision making. It implies an open minded and pluralistic education, empowering for participation and responsibility.

**53428**

### **Participation Factors of Education Service Officer's in Lifelong Learning**

Rosezelenda Abdul Rahman, University Malaya, Malaysia

Ahmad Zabidi Abdul Razak, University of Malaya, Malaysia

The study was conducted to identify factors that encourage and hinder the participation of education service officer's in lifelong learning. A total of 400 teachers was involved as respondents in this study. The study was a quantitative research that uses the survey method. Data were collected through feedback from the respondents using questionnaire. Quantitative data were analysed using the Statistical Package for Social Sciences (SPSS) software version 24.0. The results show that the overall encouragement factors that encourage participation of teachers in lifelong learning (LLL) are at high level. Whereas the barrier factors that obstructive teacher participation in LLL are at the moderate level. This study can provide information to training centre and institution to plan appropriate course and training that fulfil the need of the teacher. Meanwhile teacher and school administration can take account the barrier factors that hinder the teacher participation in LLL. In the same time, education service officers can plan their own learning using the information given. The final analysis revealed all 31 items are suitable to measure the encouragement and barrier of participation in lifelong learning. The Results of the pilot study showed that the instrument were very good reliability ( $\alpha=0.933$ ).

**54316**

### **Credit Counting to Lifelong Learning – Fostering an Independent Learner Culture Through the Transformation of Assessment Practices**

Chloe Humphreys, Otago Polytechnic, New Zealand

Since its establishment in 2011, the Bachelor of Culinary Arts (BCA) programme at Otago Polytechnic has used design as pedagogy, with project based learning as the key medium for assessment. Despite the lack of formal examinations, over recent years the degree has seen a major increase in assessment anxiety, with students focused primarily on how to get the desired grade rather than engaging in learning for learning's

sake. A deeply ingrained desire to be spoon-fed 'the answers' is directly at odds with the culture of the BCA, which values critical thinking and student autonomy. The increasing 'assessment obsession' among school leavers and students previously engaged in tertiary education seems to highlight a key problem with what Sadler identifies as "the strong trend towards fine-grained prescription, atomised assessment, [and] the accumulation of little 'credits' like grains of sand..." (Sadler, 2007, p. 392). Such observations have engendered a re-evaluation of assessment practices within the programme, in order to place learning back at the centre. This paper will examine the evolution of assessment practices within Year 1 of the BCA. By going back to Biggs' concept of constructive alignment, the programme aims to reconceive assessment criteria as 'learning criteria', with a focus on collecting bodies of evidence rather than prescriptive assessment tasks.

**54455**

**Empowering Students through Tutor's Feedback in Online Learning**

Rahmat Budiman, Universitas Terbuka, Indonesia

Online learning students may encounter adjustment difficulties particularly in the early semesters. Students with lack of computer literacy and related educational background might result in withdrawal from the course of study prematurely. The current research was carried out to investigate tutor's feedback as a means to empower online learning students, including to build autonomy, help-seeking initiatives, and connectivity. The qualitative descriptive analysis was conducted on 135 students' comments given in three different online classes. Data was collected by a set of open-ended questions provided at the end of the online tutorial sessions. Data analysis adopted thematic analysis. Three main themes were identified, including independent learning, connectivity, and help-seeking initiatives. Meanwhile, an emerging theme was identified, namely solitary learning styles. The findings indicate that tutor's feedback played an important role in empowering students. Individual feedback helped students understand independent learning more comprehensively, build connectivity with tutor and institution, and find possible solutions for each problem they met. Students with solitary learning styles, however, preferred feedback that pointed out the weaknesses or inappropriate answers they submitted. In addition, they showed lack interest in other feedback given by the tutor.

## Saturday Session IV: 14:40-16:20

Room: *To be Announced in Final Schedule*

Session Topic: Innovations in Learning & Teaching

Session Chair: *To be Announced in Final Schedule*

**53324**

### **Of Makers and Spaces: Learning Ecosystems for Innovation in a Singaporean School**

Johnny Wee, Ping Yi Secondary School, Singapore

Kok Ping Tan, National University of Singapore, Singapore

The project seeks to study the pedagogical, practical and social implications of implementing a Design & Technology (D&T) common curriculum infused with Makerspace principles to nurture students' creativity and innovation in Ping Yi Secondary School, Singapore. As a subject, D&T guides students through design-and-make projects through the design process, which lends itself well to the integration of Makerspace principles, namely - tinkering, playing, experimenting, expressing, iterating and collaborating, using new digital tools to make, share and learn. The scope and requirements of each project can range from individual works to large-scale group-based projects, which provide multiple holistic opportunities for independent learning, as well as interdependent social interactions between common curriculum students that may differ widely in attitude and aptitude. The study will focus on the ideas, considerations, and compromises made over the course of the project, and attempts to measure its impact on students in the form of attitudes, academic learning, personal empowerment and disposition towards innovation. Taken together, the study suggests that integrating Makerspace into the school curriculum can lead to positive changes for students in both academic learning and disposition towards innovation.

**54331**

### **QORI Learning Model to Foster Learning Autonomy**

Erik Wahyu Zaenal Qori, Indonesia University of Education, Indonesia

The awareness of rural communities in the province of West Java, Indonesia to further their education to a higher level remains low. In general, most teenagers only go to junior high school; only a small proportion continue to high school. Those who have graduated from junior high school generally look for work in big cities, making the high school gross enrollment ratio (GER) in the province of West Java surprisingly low. To circumvent this issue, the Government of West Java Province has since 2017 offered free Open High School in parent schools in each sub-district. It is hoped that such an initiative will enable children to learn independently. Ideally, good learning autonomy allows children to develop optimally. In reality, however, the student learning independence in Open High School is very low. Among the numerous contributing factors are the learning environment in school that is less conducive and the use of monotonous learning models. This study adopted the QORI (Quantum, cOllaboRative and Independent) model as an alternative learning model through an R&D design. Findings reveal that the QORI model had an impact on enhancing learning autonomy constructed from the stages of building quantum interactions, collaborative learning so that self-regulation emerged, leading to independent learning.

**54427**

### **An In-Depth Study of the Classroom Management Skills and Techniques of the Senior High School Faculty**

Carissa Enteria, Jose Rizal University, Philippines

In its first year of full implementation in the Philippines in 2016, the senior high school (SHS) curriculum meant more classrooms, learning materials, and teachers. At Jose Rizal University, one of the oldest

universities in Metro Manila, Philippines, the enrollment of one thousand six hundred (1, 600) SHS students resulted in the hiring of many new teachers. With the newly-hired teachers' diverse background and work experience, the teachers' classroom management skills and techniques were the focus of this study. The researcher also attempted to discover whether the teachers' beliefs and practices in managing the classroom contribute in effective teaching. Using the convergent parallel mixed methods design, the quantitative data i.e., survey results from thirty-three (33) out of forty-four (44) SHS faculty were analyzed separately from and then merged with the qualitative data which came from focus group discussion, classroom observation, and the teaching philosophy statements of six participants. Using the Pearson R and analysis of variance (ANOVA), the results revealed that the frequency and the usefulness of the beliefs and practices of the SHS teacher-participants had different degrees of influence to their classroom management practices. Though they believed that some of the practices were useful, these did not manifest in their observed classroom management. Meanwhile, the practices that were not so frequently practiced as claimed by the participants were those which were actually manifested in their classroom management. Moreover, teachers practiced their beliefs as influenced by their philosophy in teaching. This study was done so that the faculty will take a more reflective look at their classroom management skills and techniques to practice those which are truly useful since effective classroom management means more student involvement and lesser student misbehavior that may eventually result in better student achievement.

**54555**

**Motivational Leadership and Inclusive Education: Factors and Challenges to Motivate Primary Head Teachers' in Bangladesh**

Md Shah Moazzem Hossain, Proyash Institute of Special Education and Research, Bangladesh University of Professionals, Bangladesh

Sifat-E- Islam, UNICEF, Bangladesh

Motivational leaders run their institutions with a purpose. This study was aimed to investigate the factors that motivate primary school head teacher of Northern part of Bangladesh and as well what challenges are there to motivate them in the right direction. The study was qualitative in nature and semi-structured interview and Focus Group Discussion (FGD) took place to get the data. Through purposive and random sampling, a total sample size of 20 was selected and participants were only from northern parts of Bangladesh. The study findings suggested that salary, the opportunity of professional development, knowledge of inclusive education, policy, job satisfaction, parents and other stakeholders' cooperation play important role in determining the level of motivation towards implementing inclusive education. Head teachers argued that when those factors are unsatisfactory by any means to them cause a challenge to get motivated towards inclusive education. This study has an implication on doing further study with larger sample size which will make the result more generalized and types of initiatives should be taken to make head teachers motivated in their leadership role to make a school inclusive.



## Saturday Session IV: 14:40-16:20

Room: *To be Announced in Final Schedule*

Session Topic: Teaching Experiences: Math Education

Session Chair: *To be Announced in Final Schedule*

**53351**

### **Understanding Mathematically Talented Male Learners' Perception of Teaching Mathematics as a Profession: A Path Analysis**

Kim Jann A. Calibara, Alimodian National Comprehensive High School, Philippines

This survey research is grounded on the objectivist epistemology and informed by positivism. Path analysis was used to examine the predictive and mediational role of parental support, classroom environment, value, attitude, and anxiety in the perception towards teaching mathematics as a profession of mathematically talented male senior high school learners. One hundred eighteen learners from purposively selected big public and private schools in the city of Iloilo and in the 1st, 2nd, and 3rd districts of the province of Iloilo during the school year 2018-2019 participated in the study. Six instruments were used to gather data which underwent content validation and reliability testing. In the descriptive part, results revealed that mathematically talented male learners have moderate parental support, positive classroom environment, very useful value of Mathematics, strongly positive attitude, low anxiety, and moderately high perception towards teaching Mathematics. In the inferential part, parental support, value and attitude can directly predict the perception towards teaching Mathematics but not with classroom environment and anxiety. Moreover, parental support, value and attitude were partially mediated while classroom environment was completely mediated on the influence the perception towards teaching Mathematics by the other constructs included in the model. Furthermore, classroom environment has an effect on the perception towards teaching Mathematics indirectly. Parental support has the highest contribution in predicting the perception towards teaching Mathematics. In conclusion, these findings indicated that parental support has the biggest attribution in predicting mathematically talented male learners' perception towards teaching Mathematics.

**53009**

### **Readiness, Difficulties, and Assessment Practices of Pioneer General Mathematics Teachers: Bases for the Development of Performance Task Modules**

Rene Noquera, Dapdap National High School, Philippines

Dolly Rose Temelo, West Visayas State University, Philippines

This design research aimed to determine the level of perceived teaching readiness, teaching difficulties, and performance assessment practices of the General Mathematics teachers. Results of these were made as bases in producing performance task modules which hope to broaden the range of tasks used by the teachers in assessing the students' mathematical knowledge and skills. The three researcher-made instruments namely, Teaching Readiness Questionnaire, Teaching Difficulties Questionnaire, and Performance Task Assessment Questionnaire were the data sources. Adapted evaluation tools were used by the students, curriculum expert, teacher and observer to evaluate the developed performance task module. Statistical tools such as frequency, rank, mean, and standard deviation for descriptive statistics and Pearson's  $r$  for inferential statistics were used to treat and analyze the data. All inferential statistics were set at .05 level of significance. Results showed that the General Mathematics teachers have "high" level of perceived teaching readiness, "low" level of perceived teaching difficulty, and "very satisfactory" performance assessment practices. The study also revealed the fourteen learning competencies which were considered difficult to teach by the General Mathematics teachers. Analyze, Design, Develop, Implement and Evaluate (ADDIE) model was considered in coming up with the first module on Functions and their Graphs and the second module on Business Mathematics and Logic which were given "very high" acceptability rating by the

set of evaluators and “outstanding” rating by the students. It is recommended that the developed performance task modules be fully utilized by the General Mathematics teachers in order to serve their purpose.

**53286**

**Reasoning Skills, Content Knowledge, and Conjecturing Ability of Pre-service Mathematics Teachers**

Jan Rex Osano, West Visayas State University & Paref Westbridge School, Inc., Philippines

This mixed-method study was conducted to find the level and relationship of conjecturing ability of pre-service mathematics teachers to their reasoning skills and content knowledge, find the predictor of conjecturing ability, identify the problems in making conjectures, and ways to cope with those difficulties. The participants of the study were 25 pre-service mathematics teachers. The data-gathering instruments were three multiple-choice tests for reasoning skills, content knowledge, and conjecturing ability. In-depth interview was conducted to determine the problems and difficulties in generating conjectures, and how to cope with these problems and difficulties encountered. After collecting quantitative data and analyzing its result, qualitative data analysis was utilized to support in detail the initial quantitative results. Results revealed that pre-service mathematics teachers has “average” level of content knowledge and conjecturing ability while “high” reasoning skills. It was found out that content knowledge and reasoning skills has significant relationship same with content knowledge and conjecturing ability. On the contrary, reasoning skills and conjecturing ability has no significant relationship. The result of linear regression analysis indicates that content knowledge was the only predictor of conjecturing ability. Pre-service mathematics teachers revealed that retention of previous lessons and their perception of geometry as a subject were the difficulties encountered in making conjectures. Also, in facing those problems, pre-service mathematics teachers used, remembering past lessons, finding pattern, and, identifying given through illustrations and visuals in geometry in order to cope with it. Moreover, an increase in pre-service mathematics teachers’ content knowledge implies an increase in their conjecturing ability.

**53664**

**Pre-service Teachers’ Mathematics Anxiety and Teaching Anxiety, Self-Efficacy and Efficacy Beliefs Toward Teaching Mathematics: A Path Analysis**

Janice Bolen, University of St. La Salle, Philippines

This study explored the interrelationships among pre-service teachers’ mathematics anxiety, teaching anxiety, self-efficacy, and efficacy beliefs toward teaching mathematics. Participants consisted of secondary mathematics pre-service teachers (N=333) in state universities and colleges of Western Visayas, Philippines. Path analysis was used to validate direct and indirect effects of mathematics anxiety, self-efficacy, and efficacy beliefs in teaching mathematics to teaching anxiety in the revised model. No direct effects from mathematics anxiety to teaching anxiety were observed; however, it may be mediated by self-efficacy, efficacy beliefs in teaching mathematics and teaching anxiety resulting from content, attitude, and self-confidence. Direct and indirect paths from self-efficacy and efficacy in teaching mathematics to teaching anxiety reveal that as the self-efficacy beliefs toward mathematics teaching increases, mathematics teaching anxiety decreases. The variables with the strongest total effect on anxiety resulting from knowledge toward teaching mathematics is the teaching anxiety resulting from content and resulting from self-confidence. Personal mathematics teaching efficacy has the strongest negative effect on anxiety resulting from the attitude toward teaching mathematics, has the strongest negative direct effect on anxiety resulting from self-confidence and also has the strongest negative effect on anxiety resulting from content toward mathematics teaching. No mediating effects were observed involving self-efficacy and efficacy beliefs in teaching mathematics. Mediating effects of teaching anxiety about attitude from the anxiety about content to knowledge in teaching mathematics were observed. Additionally, teaching anxiety about content and attitude also mediated the effect of teaching anxiety about self-confidence on anxiety about knowledge toward teaching mathematics.