

# IICEHawaii2019 & IICSEEHawaii2019

Hawaii International Convention Center, Honolulu, Hawaii  
January 3-5, 2019

## Final Draft Schedule

### Please Check & Confirm

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

Please notify us of any corrections by **Thursday, December 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 **Monday, December 17**.

All Abstracts will also be available online at this time.

**Thursday at a Glance**  
**January 3, 2019**

- 09:15-10:00 Conference Registration & Morning Coffee | Room 302
- 10:00-10:05 Announcements | Room 304  
Brian Aycock, IAFOR, Japan
- 10:05-10:10 Welcome Address | Room 304  
Joseph Haldane, IAFOR, Japan
- 10:10-10:20 Welcome on Behalf of University of Hawaii at Manoa | Room 304  
Xu Di, University of Hawaii at Manoa, USA  
Curtis Ho, University of Hawaii at Manoa, USA
- 10:20-10:30 Welcome on Behalf of IAFOR Executive & Recognition of IAFOR Scholarship  
Winners | Room 304  
James McNally, University of Michigan, USA  
Sela Panapasa, University of Michigan, USA
- 10:30-10:50 **Featured Presentation** | Room 304  
***Hawaiian Oli Opening***  
Uncle Bruce Yoshio Keaulani, Living Life Source Foundation  
Auntie Kehaulani Lum, Living Life Source Foundation
- 10:50-11:00 Conference Photograph
- 11:00-11:30 Coffee Break | Room 302
- 11:30-13:00 Keynote Panel** | Room 304  
***Education and Sustainability: Local Lessons from Hawai'i***  
Christina M. Kishimoto, Hawaii State Board of Education, USA  
David Lassner, University of Hawaii, USA  
Richard R. Vuylsteke, East-West Center, USA  
Joseph Haldane, IAFOR, Japan (Chair)
- 13:00-14:00 Lunch Break | Room 302

**Hawaii 2019 Draft Schedule**  
**Thursday, January 3**

- 14:00-15:00    **Featured Presentation** | Room 304  
                  ***Opportunities Gained Through Interdisciplinary Research***  
                  Amanda Müller, Flinders University, Australia
- 15:00-15:15    Coffee Break | Room 302
- 15:15-15:30    IAFOR Documentary Photography Award** | Room 304
- 15:30-15:45    **Featured Presentation** | Room 304  
                  Keiichi Ogawa, Kobe University, Japan
- 15:45-16:00    Coffee Break | Room 302
- 16:00-17:00    Conference Poster Session | Room 302
- 17:00-18:00    Welcome Reception | Room 304

## Conference Poster Session

Thursday, January 3: 16:00-17:00

Room: *To be Announced in Final Schedule*

**42523**

### **Women Elementary Principals' Perceptions of Work-Life Balance Within Their Organizational and Personal Contexts**

Joyce Lee Yang, Biola University, United States

Work-life balance (WLB) is a challenge for principals to navigate as the ever-increasing responsibilities of the role as principal requires more time. Because time is limited, achieving balance between principals' workloads and home responsibilities can cause a significant amount of stress. Often, women principals face additional challenges because of childcare and household responsibilities. In this qualitative study, I conducted in-depth interviews with 11 women elementary principals in Southern California from 10 different districts. I asked questions about their perceptions of their personal and organizational contexts and how those impacted their WLB. I also investigated how they managed WLB. Within their organizational contexts, the participants reported factors such as their site team, parents, superintendent, and special education programs as impacting their WLB. Within their personal contexts, they reported factors such as spousal support, children, and financial need as impacting their WLB. These participants also reported the emotional toll of the principalship, how they managed WLB through logistical strategies, and shared other personal insights. Given the data, I recommend that organizations should support women principals in their practice and encourage them to enter and persist in the role by implementing better policies and practices at the district level. By providing more site level staffing support, fostering a culture where WLB is valued, releasing principals from non-essential meetings and obligations, and training principles to prioritize tasks, districts can help mitigate the stress and conflict women principals experience due to the challenges of WLB.

**44347**

### **Exit Slips: Feedback, Formative and Fulfilling**

Joyce Laben, Northern Illinois University, United States

The use of exit slips and reflection have been researched for the use in the classroom. During the fall semester a goal of improving instruction using exit slips was implemented. At the end of each class, each student was provided an exit slip (post-it). On the last slide of the powerpoint was either a reflection or a formative assessment of the content of the next class. Reflective prompt was 'comments, concerns, need to know, suggestions, jokes.' Formative assessment prompt was for example 'Rate your knowledge base of on concepts: 1. Social Cognitive Theory, 2. Zone of Proximal Development, 3. Scaffolding. Rating scale: A- good knowledge base; B- fair; C- need to know more.' The completion of the exit slip was anonymous. The results of the formative assessment determined the instruction in the next class. The amount of time spent on each concept was driven by the students' responses. The questions were usually insightful and provided guidance for discussion and instruction. The exit slip provided quick communication with the instructor. In the age of short messaging (text, twitter), student's communication provided a form of empowerment. The results of the survey indicated the students agreed with the use of exit slips for communication, instruction in the next class, and ability to express concerns. The students mildly agreed that exit slips should be used in all 'face to face' classes. The student agreed on the anonymity of exit slips.

**44351**

### **An Education Model for Coding and Software to Improve Computational Thinking**

HeeSeon Jang, Pyeongtaek University, South Korea

The regular coding (programming or software) education in elementary, middle and high school has been begun in Korea since this year (2018). Many models for efficient coding education have been proposed, and Scratch is widely used as acceptable easy tool. However, under previous education models and tools, the computational thinking capability of the students does not improve. In this paper, a new coding education model to improve the computational thinking which is critical in software development is proposed. In addition to, 645 questionnaire survey for teachers, programmers, and students is analyzed, and its results are reflected on the proposed model. The model consists of following 4 steps; 1) problem definition and understanding of mathematical concept, 2) problem solving and algorithm design, 3) raptor flowchart development, and 4) understanding of source code. Note that the raptor is the free software tool based on visual flowchart of international standard organization (ISO-97N90), downloaded at <http://raptor.martincarlisle.com>, in which the defined problem can be solved with visual tool, and furthermore, the source code can be easily generated by using the raptor menu. From survey results, it is observed that total of 93% of the respondents is shown as the positive opinion for the usefulness of the visual tools such as raptor and UML for coding education. Finally, under statistical analysis (chi-square test), we also observe that the experienced respondents for coding (or programming) show the more positive opinion (about 10% deviation) for the visual tools rather than those of inexperienced.

**44394**

**Agile-Model Based Dynamic Curriculum Development and Refinement Approach**

Leon Pan, University of the Fraser Valley, Canada

High-quality curriculums play a key role in successful education, and curriculum development is one of the mandatory tasks for every educator. Dysfunctional curriculums not only degrade learning outcomes but also result in students complains. Educators and researchers have put significant efforts into developing high quality curriculums and a number of curriculum development models have been established. However, a curriculum is by no means static. No single curriculum can meet every student's requirements and suit for all situations. Curriculums should actually be under continuous refinement in order to adapt to the constantly changing environment, including the demographic of students. Thus, the effective method and guidance that assist dynamic curriculum development and refinement are required. This research is to adapt and utilize a widely used software engineering Agile-model to guide and support dynamic curriculum development and refinement. The adapted Agile model, like the original one, consists of a number of iterations each of which achieves one of the course learning objectives. The curriculum is dynamically refined and enhanced in each iteration to best suit the students' background and achieve the current iteration learning objective. Each iteration is organized into four phases and the tasks and activities in each phase are specified to continuously refine, enhance, and optimize the curriculum. A step-by-step easy-to-follow guidance, which leads to adaptive high quality curriculums, will also be created and presented. It is expected that the teaching and learning outcomes will be promoted significantly by applying this system.

**44408**

**The Impact of a Literacy Strategies Course Taught in a Public-School Setting on Teacher Candidates and Students with EBD**

Stephen Wills, Georgia College & State University, United States

School-university partnerships have been among the most frequently recommended approaches to educational reform. From the university perspective, the goal of these partnerships is to bridge the disconnect between what teacher candidates are taught in on-campus courses and what they implement in P-12 settings with students. This study describes the impact of a literacy strategies course taught at a local public school that includes special education teacher candidates working with students with Emotional Behavioral Disorders (EBD) on literacy strategies that are taught in the classroom portion of the course. Within the framework of the course, participating students with EBD receive 45 minutes of small group

literacy strategy instruction from special education teacher candidates each week as they implement the instructional strategies taught in the course. Resulting data relating to the impact of the participating students with EBD include growth on curriculum-based measures of reading comprehension. The results also show that EBD student participation in the reading strategies activities increased over time as relationships were formed with the teacher candidates. Data on the impact on teacher candidate growth include positive ratings on course evaluations on the school-based literacy strategies course when compared to sections of the same course taught on the college campus and the results of a questionnaire given to teacher candidates at the conclusion of the semester that show the positive impact of the course on their professional growth as well as their attitudes toward students with EBD.

**44428**

**Community-Based School: The Case of an Indigenous School in Mindanao**

Celeste Vallejos, University of the Philippines, The Philippines

Reginald Vallejos, University of the Philippines Manila, The Philippines

This case study examines the history and processes in building a community-based school for the indigenous people of Mindanao particularly the Alternative Learning Center for Agricultural and Livelihood Development (ALCADEV). ALCADEV was established in 2004 as an alternative learning system designed to provide secondary education to poor indigenous youth – Mamanwa, Manobo, Higaonon, Banwaon, and Talaandig. Community-based schools provide education that is relevant to the culture and needs of the community. The role and level of participation of the community in the development of the school curriculum is also examined.

**44464**

**The Impact of Quality Matters Training on Student Success Among Student Groups**

Erick Kong, California State University East Bay, United States

According to California State East Bay (CSUEB) office of Faculty Development, 25% of instruction is online or hybrid with more than 17% of instruction in completely online courses; 5% of students take courses exclusively online and nearly one-third of our students enrolled in at least one online course. The most recent enrollment counts for online and hybrid courses show that there were 37,700 students enrolled in 1,300 sections during the last academic year. Quality Matters (QM) has been the benchmark of faculty training and certifying online or hybrid courses in many universities. QM is an international organization that is recognized as a leader in quality assurance for online education. It provides professional development in the use of rubrics, tools, peer review, and practices to improve the quality of online education. CSUEB has been using QM to ensure quality assurance are in place. The purpose of this study is to explore the impact of QM training on student success during an academic year at CSUEB. It will look at whether or not QM certified courses improves student success. Furthermore, it will analyze the success among student groups: First Generation (FirstGen), Under Represented Minority (URM), Pell Grant Eligibility (PellElig), and Remediation (Remed). In addition, the Findings and Recommendations section will summarize the result findings and make recommendations on future study along with delimitation of this study.

**44580**

**Use of Contextualized Programming Projects for Computational Thinking Learning**

Chiung-Fang Chiu, National Chi Nan University, Taiwan

Computational thinking emphasized the ability to use computer science knowledge to solve problems. The importance of learning computational thinking has been highlighted by many research. However, the learning material or teaching approach for computational thinking learning is still limited. Numerous of studies have documented the benefits of contextual methods of instruction, such as increasing engagement, enhancing motivation, and providing relevance. Tools or solutions combining software and hardware, such as Arduino, have been classified as a suitable tool for contextualized programming education. Arduino, as

an open-source platform, can be utilized to coding and designing different applications. Contextualized programming projects facilitated by Arduino could bridge the connection of instructional content with real-world applications to teaching computational thinking concepts. Different Arduino application projects including basketball arcade machine, ticket fetching machine, and barcode scanner that are highly relevant to daily life were introduced to students. Meanwhile, computational thinking concepts including problem decomposition, algorithm design and simulation were enhanced in these contextualized programming projects. Six classes junior high school students participated in this study to finish the programming projects. Students were asked to write one questionnaire after finishing the programming project to express their attitudes toward this study. The questionnaire results reveal that most students appreciated the learning activities of contextualized programming projects. Implementation of these projects not only improved their understanding of the different authentic programming applications in daily life, but also enhanced their skills of computational thinking and programming.

**44619**

**Education Assessment in Intelligent Tutoring System**

Su Chen, The University of Memphis, United States

Art Graesser, The University of Memphis, United States

Classical education methods are gradually being replaced with computer assisted learning, such as virtual education, online school, and distance learning systems. Computer software programs, including Intelligent Tutoring Systems (ITS) are created to facilitate interactive teaching between students and the tutor. As a modern teaching method, ITS are not only more attractive and dynamic to users, but also more effective for instructors to monitor and assess users' performance. We propose a novel automated disengagement tracing system (DTS) that detects mind wandering in students using AutoTutor, an ITS with conversational agents. DTS is based on an unsupervised learning method and thus does not rely on any self-reports of disengagement. We analyzed the reading time and response accuracy of 52 low literacy adults (from literacy classes in Atlanta and Toronto) who interacted with AutoTutor to learn reading comprehension strategies. All participants read at 3.0–7.9 grade levels. On average, the 52 participants completed 23 lessons and each lesson contained 14.6 questions ranging from 6 to 30 questions. Our results show that students completing a lesson with 20 questions tend to start mind wandering at the 11th-15th question. Question chunks with mind-wandering have an accuracy of 20%, in contrast to 70% in accuracy for non-mind wandering. These feedbacks from the proposed disengagement monitoring system can elucidate factors that lead to distractions. Accordingly, effective interventions can help engage the off-track learner at the right time.

**44639**

**Is There a Language Choice in Macao Primary Schools?**

Ana Cristina Neves, University of Saint Joseph, Macao

Macao has a very peculiar education system based on a longstanding coexistence of church, government and community-run schools (Adamson & Li, 2005) that were influenced by the local community, but also the Portuguese presence. Currently, the decentralized education system (Tang, 2000) comprises 77 schools (DSEJ, 2017), 10 of which are public Luso-Chinese schools whose main purpose is to preserve the heritage of the Portuguese language, along with the main local language, Cantonese, while not neglecting the learning of Mandarin. Five of those institutions are primary schools. Portuguese is the means of instruction of two local schools, one being government-run and the other private. The target population of this study are the Luso-Portuguese and the Portuguese-medium primary schools. The data was collected from a total of 148 fourth and sixth graders aged between 9-12 years of four institutions, in the years of 2011 and 2017. Based on an end-closed questionnaire, the poster describes the target population and attempts to shed light onto language practices in the school domain, more specifically in the interaction with school stakeholders. The findings show the presence of seven Chinese language varieties, that are outnumbered by the Cantonese speakers. Thai and Tagalog are two further Asian languages that also set presence in this context. Portuguese is the major but not the only European language present in this community. There is



also a statistically relevant relationship between the type of school and the children's home language and, by extension, the children's birthplace.

**44886**

**Comparing Vocabulary Profiles of Asian L2 Written English in the ICNALE Corpus**

Dax Thomas, Meiji Gakuin University, Japan

This brief study examines the vocabulary profiles of Asian EFL students' written English in the International Corpus Network of Asian Learners of English (ICNALE; Ishikawa). The ICNALE corpus is a collection of written and spoken texts from 2800 learners of English across 10 different Asian countries. The texts included in this corpus were composed under controlled conditions (content and length) and are grouped by CEFR level (A2, B1-1, B1-2, B2+). The corpus also includes samples of native-speaker English. In this study, vocabulary profiles were constructed for written essays from the corpus along three bands - GSL1, GSL2, and AWL - using AntWordProfiler (Anthony, 2013). It was found that: 1) while there appeared to be a slight difference in AWL type percentages between low and high CEFR levels, these percentages varied much more greatly by country; 2) essays written by Japanese EFL learners had the lowest percentage of AWL types in the entire corpus while those written by ESL learners in Singapore had the highest; and 3) there was no statistical difference between the AWL type percentages of native speakers and those of CEFR levels B1-2, and B2+.

**44965**

**Challenges to Serve Disadvantaged High-Ability Students and Relationship Between Self-Concept and Their Academic Achievement**

Mihyeon Kim, The College of William and Mary, United States

Examining lessons learned through 7 years of experience of hosting Camp Launch, a university-based residential STEM enrichment program for low-income, high-ability middle school students. This study used the Self-Description Questionnaire-I (SDQ-I; Marsh, 1992) and self-reported GPA. Regression was conducted to explore relationships between students' self-concept and academic achievement. The results showed that students' academic achievement were significantly predictive from general self-concept related to achievement in schools. A positive self-concept has been associated with happiness of individuals (Holder & Coleman, 2008; O'Rourke, Cooper, & Gray, 2012), and there have been studies on the effect of self-concept and academic achievement. This session shares information about components of the program and suggestions for implementing programs that serve this population. Also, the presentation explores relationships among students' self-concept and academic achievement. This study suggests that a positive self-concept related to school achievement is potentially important in the prediction of academic achievement. The study provides implications and suggestions for developing positive self-concept of academically disadvantaged middle school students.

**44984**

**How the Research-Based Science News Regarding Healthy Diet Were Narrated in Taiwan**

Sung-Tao Lee, National Taichung University of Education, Taiwan

Wen-Yi Hsu, National Taichung University of Education, Taiwan

Yu-Yun Nien, National Taichung University of Education, Taiwan

Science news is one of the most common access of science information for people in daily lives and students for science learning and the diversified sources of them were often derived from original academic research findings. Accordingly, the purpose of this study was to explore how these research-based science news were presented in the internet news agencies and if there are any narrative patterns or the nature of science could be revealed. The related elements in scientific inquiries and specific terms regarding the nature of science were chosen for this narrative analysis. A total number of 97 articles from four Taiwan local daily newspapers were collected for analysis (2017/9~2018/4). The analysis showed that 'Results' and 'Experiment' were the two most common elements appeared (33.4% for results and 15.1% for experiment) in



these research-based science news and the uncertainty features of science were scarcely indicated for potential audiences. A further content analysis also showed that most of the conclusions are causal assertions about a healthy diet and some specific suggestions were also firmly instructed. Considering the attainment of a scientifically literate society and citizenship, these results may provide some implications for science education and science communication and the related reflections will be discussed during the conference.

**45033**

**Hands-On Environmental Education with Scientific Data Improves Science Self-Efficacy, The Weakness of Japanese Students in PISA?**

Yoshinori Saitoh, Gunma Prefectural Institute of Public Health and Environmental Sciences, Japan

Hiroshi Tago, Gunma Prefectural Institute of Public Health and Environmental Sciences, Japan

Shunichi Miwa, Ibaraki Kasumigaura Environmental Science Center, Japan

Naoto Hosoda, Ibaraki Kasumigaura Environmental Science Center, Japan

Aiming for sustainable development, the OECD requires all people to develop key competencies, and conducts a triennial international survey for evaluating those of 15-year-old students, Program for International Student Assessment (PISA). In PISA, Japan has usually ranked high in science literacy as well as in reading and mathematics performances. On the contrary, "students' attitudes towards science" like index of science self-efficacy is much low. In exchange for the success of scoring high, the Japanese educational system might fail to cultivate ones' curiosity or aspiring thinking power to help us address uncertainties in lives. This might be background of the social problems in the past in Japan such as reputational damage relating to environmental problems by vague anxiety. Those responses run counter to sustainability. For addressing environmental problems which include uncertainties due to the limited scientific knowledge, a competency for getting reasonable understanding and taking informed decisions with positive attitude is critical. We consider this competency to be fostered by practical opportunities to handle scientific data and to make decision on environmental problems. To provide such opportunities, we have shed light on Local Government Institute for Environment (LGIE) in Japan, who mainly monitor and assess pollutants in various environments and secondarily implement Environmental Education (EE) using their hands-on skill too. This study object is to validate the effect of LGIE's hands-on EE by whether it improve the weakness of Japanese, the index of science self-efficacy. We developed an evaluation method using PISA and tested it when implementing EE for students.

**45039**

**Utilizing Simulation Training to Enhance Dental Hygiene Student's Knowledge and Skills in Pediatric Care**

Deborah Mattheus, University of Hawaii at Manoa, United States

Maureen Shannon, University of Hawaii at Manoa, United States

Katherine Burke, University of Hawaii at Manoa, United States

Dental caries is the most common chronic disease in pediatrics. This preventable condition can be mitigated with frequent preventive dental visits starting at or before 1 year of age. Few dental hygiene (DH) programs include specific pediatric courses, resulting in limited exposure and comfort in providing pediatric care. This evidence led the UHM SONDH to evaluate and revise the DH program to increase student's pediatric exposure and to create a Post-BS Advance Certificate in Expanded Function Dental Hygiene (EFDH) in Pediatrics. Simulations using low fidelity (manikins) and patient/parent (actors) were utilized to prepare students to provide care to children and families. A pre-simulation survey (n=41) assessed student's confidence in obtaining pediatric vital signs; documenting growth; recognizing social determinants of health and obesity risk factors; and communicating with parents. Post-simulation results (n=39) indicated improvements in all areas with greatest changes in confidence (scale 0-4) in recognizing obesity risk factors (pre=1.90; post=3.23); obtaining vital signs (pre=1.73; post=2.74); and recognizing social determinants of health contributing to children's oral and overall health (pre=1.90; post=2.90). Simulation in DH offers

training that utilizes realistic scenarios, where students can practice skills in a safe and controlled environment while reducing patient exposure to inexperienced trainees. The survey results demonstrate the impact of simulation for DH student's to gain confidence in pediatric hands on skills and also improving communication skills including the provision of culturally sensitive education to high risk families with the goal of improving oral health outcomes.

**45090**

**Study of the Effect of a Freshman Orientation Event Program**

Fumika Kimura, Tokyo Kasei Gakuin University, Japan

The main purpose of our study is to examine the effects of a freshman orientation event program for women's university students. The program was intended to be a university itself. And this program also intended to make their relationships with classmates and university educational staffs include professors, associate professors, assistant professors and assistant good. The administration of the program was carried out by university educational staffs along with senior students. This program consists of one day special event and the technique of the group work was being used by this program. Participants of this program were 131 students. The students major in home economics, and half of them were taking teaching courses with teaching license of home economics at junior high school and high school. I conducted a survey of the description formula for the participants after the program and also conducted an interview survey for the educational staffs who participated in the program. The educational staffs who participated in the program observed freshmen concerning their behavior during the program. The survey of the description formula included items to ask the comment of the program and the feelings after the program was over. In this study, two aspects of the freshman orientation event program were revealed. One aspects were effects of the program for students, and the other aspects were for educational staffs. The program was effective for students relationships and also effective for educational staffs to assess students.

**45094**

**The Effect of Childhood Emotional Trauma on Relationship Addiction Tendency: Mediating Role of Internalized Shame and Social Support**

Yeon Joo Song, Dongshin University, South Korea

The purpose of this study was to investigate the mediating effects of Internalized shame and perceived social support on the relation between childhood emotional trauma and relationship addiction tendency in the unmarried. For this study, self-reports data were collected from 566 unmarried men and women for childhood emotional trauma, internalized shame, perceived social support and relationship addiction tendency. Correlation analysis and Structural Equation Modeling were employed to examine the hypothesis. The results were as follows. First, there were significant correlations among childhood emotional trauma, internalized shame, perceived social support and relationship addiction tendency. Second, the association between childhood emotional trauma and relationship addiction tendency was mediated by internalized shame, while not by perceived social support. Additionally, childhood emotional trauma did not show direct effect on relationship addiction tendency. Third, perceived social support and relationship addiction tendency was mediated by internalized shame, while perceived social support did not show direct effect on relationship addiction tendency. These results imply that it is required to consider psychological mechanisms of childhood emotional trauma, internalized shame and perceived social support in developing the program for preventing and treating relationship addiction tendency. Also, when counseling a client with the same tendency, it gives an opportunity to be aware of the emotional problem, and an opportunity to positively perceive its own social resources, so as not to reach interpersonal problems such as relationship addiction.

**45102**

**Addressing Deficiencies in Skin Cancer Prevention Knowledge Via a Community-Based Educational Intervention Within a Predominantly Uninsured Minority Population**

Shayan Cheraghlou, Yale School of Medicine, United States  
Herbert Castillo Villadares, Yale School of Medicine, United States  
Alison Lee, Yale School of Medicine, United States  
Amanda Zhou, Yale School of Medicine, United States  
Sarika Ramachandran, Yale School of Medicine, United States

**Introduction:** The incidence of both melanoma and nonmelanoma skin cancer is increasing rapidly within minority populations. Minority populations are also known to have delayed detection and treatment of cancers, ultimately resulting in poorer health outcomes. These differences are thought to be due to barriers to access such as less knowledge about skin cancers and limited access to specialty care due to lack of insurance. In this community-based project, we assess barriers to care and provide skin cancer screening and prevention education to a predominantly minority population. **Methods:** At a SPOTme® Skin Cancer Screening held at a student-run free clinic, medical students led 15-minute information sessions on skin cancer after total body skin exams (TBSEs). We collected data on patient knowledge about skin cancer risk, prevention, and self-examinations before and after the TBSE and educational module. Patient knowledge levels were assessed for improvement using the paired McNemar's exact test. **Results:** We screened and enrolled 24 participants, the majority of which were uninsured (79%), Hispanic (71%), and female (63%). The most significant barrier to seeking care was lack of health insurance (83%), followed by cost (46%). We found that our educational intervention led to a significant increase in knowledge, risk awareness, and self-efficacy for self-screening ( $p < 0.001$ ). **Conclusions:** Educational modules aimed at increasing skin cancer knowledge among uninsured minority modules can be effectively employed in a free clinic screening setting. Further research is indicated to assess whether improvements in patient knowledge can address outcome disparities among underserved minority populations.

#### 45106

##### **Designing an Educational Intervention for Families and Medical Providers to Improve Breastfeeding Outcomes in Rural and Indigenous Communities in Mexico**

Paulina Luna, Yale University, United States  
Rafael Perez-Escamilla, Yale University, United States  
Diana Bueno, Universidad Autonoma de Baja California, Mexico  
Angelica Garcia, Un Kilo de Ayuda, Mexico

**Background:** Breastfeeding offers multiple health and economic benefits to children and mothers. Mexico has one of the lowest prevalences of breastfeeding worldwide, with rates far below the WHO's recommendations. This leads to serious health and economic repercussions, particularly for its most vulnerable populations. In this qualitative study, we aimed to understand the influence of family members and medical providers on breastfeeding practices in indigenous and rural communities in Mexico in order to design an educational intervention to promote breastfeeding. **Methods:** We conducted interviews with mothers, fathers, and grandparents of children under two as well as their medical providers in two Mexican communities. In total, we completed 65 interviews and two focus groups (with mothers and nurses). **Results:** Our study revealed that families believe that breastfeeding is the best nutrition for infants, yet, mothers are not breastfeeding exclusively nor for the recommended duration. The majority of medical providers believed mothers do not follow their recommendations due to cultural practices, however, this was refuted by most families. This discrepancy may explain the lack of quality support and care given for breastfeeding at clinics, including time of consults, provider sensibility, and clarity and uniformity in the information provided to families. **Conclusions:** To ensure that children receive the benefits of breastfeeding, an educational intervention must focus on increasing the rates of exclusive breastfeeding and duration. Medical providers should make clear and homogenous recommendations, especially for first-time and working mothers. Family education should focus on simple messages that address specific misconceptions propagated in communities.

#### 45113

**The Moderating Effect of Strength Use in the Influence of Female College Student's Career Barriers on Career Adapt-Ability**

Hee Jung Yu, Catholic University of Pusan, South Korea

Jung Hee Lee, Dong-eui University, South Korea

Purpose: The purpose of this research study was to identify the mediating effect of strength use in the influence of female college student's career barrier on career adaptability. Method: Data was collected from 212 female college students in Busan. The results were interpreted and analyzed by using multiple-regression analysis. Results: First, Career barrier was negatively correlated with strength use and career adapt-ability and strength use was positively correlated with career adaptability. Second, Career barrier had significantly effected on career adaptability, especially sub-factors of career barrier were indecisive personality, the lack of self-clarification, and the lack of necessity recognition had significantly effected on career adapt-ability. Finally Strength use moderated on the relationship between career barrier and career adaptability. Conclusion: This study is meaningful to find the role of strength use on the relationship between female college student's career barrier and career adapt-ability. Limitations of this study and suggestions for future investigations are included in the discussion.

**44461**

**Mechanistic Study of a New Phenol Reduction Process Involving Nascent Hydrogen**

Yoshiki Kawai, Prefectural University of Hiroshima, Japan

Yumi Katayama, Hachinohe Institute of Technology, Japan

Yoshiharu Mitoma, Prefectural University of Hiroshima, Japan

Highly performing reduction method for the quantitative hydrodechlorination/ring reduction of hexachlorobenzene to cyclohexane was developed by using a mixture consisting of metallic calcium as a reductant, methanol as a hydrogen donor and a solvent, in the presence of 5% wt. Rh/C as a catalyst, under mild mixing conditions at 60 °C for 4 h. However, the issue of shortening the reaction time remains by far a difficult challenge. Therefore, the reaction conditions were shifted from alkaline to acidic solutions, with a more energetic hydrogen donor: thus a iron and sulfuric acid was used. After the reaction time was reduced to only 50 min for the complete transformation of p-cresol to 4-methyl-cyclohexanol. We have taken a keen interest in the mechanistic study of the process, in order to assess the true nature of the reactive intermediates: is it really atomic hydrogen? Our zeta potential measurements strongly suggest it, as it did, for example, for our investigation of the hydrodechlorination process, in the presence of the same Rh catalyst (Mitoma et al, Chemosphere, 2016). In this presentation, we wish to clear out the aspect of the mass balance of total amount of hydrogen species, consisting of molecular hydrogen evolved as gas, dissolved molecular hydrogen, atomic hydrogen on catalyst surfaces, nascent hydrogen in the solution as well as free protons in the aqueous acidic solution (pH). We have also been able to demonstrate that there possibly is a direct relationship between zeta potential values and the amount of atomic hydrogen produced during the process.

**44463**

**Highly Efficient Detoxification Process of PCBs-Contaminated Soils with a Mixture of  $\text{Ca}(\text{OH})_2$ , Iron and  $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$  at Moderate Temperature**

Yusaku Imasaka, Prefectural University of Hiroshima, Japan

Yumi Katayama, Hachinohe Institute of Technology, Japan

Cristian Simion, University Politehnica of Bucharest, Romania

Yoshiharu Mitoma, Prefectural University of Hiroshima, Japan

PCBs-contaminated soils are generally decontaminated by indirect heating decomposition methods, at more than 500 °C. However, this method has some problems such as generating other (and sometimes more toxic) organic pollutants (e.g. dioxins and dioxin-like compounds), wasting too much energy, and requiring longer reaction time in order to remain effective. Thus far, in our previous studies, we found that this new

method of using a mixture of iron powder,  $\text{Ca}(\text{OH})_2$ , and  $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$  allows good yields for the hydrodechlorination of PCBs trapped in soil matrixes, along with diminished consumption of energy. In this presentation, we wish to demonstrate that it is possible to hydrodechlorinate 2-chlorobiphenyls and/or decachlorobiphenyl as model compounds of PCBs using these new materials ( $\text{Ca}(\text{OH})_2$ , Fe and  $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$ ), under inert gas and at moderate reaction temperature (such as 200 to 250°C). As the result of our investigations, we found that lower chlorine-substituted PCBs were separated by direct heating of polluted soil through steam distillation. On the other hand, the number of chlorine atoms on higher chlorine-substituted PCBs was easily reduced to obtain the corresponding lower chlorinated biphenyls and/or benzenes derivatives, which were subsequently hydrodistilled. Finally, the efficiency of soil detoxification from PCBs-like compounds reached almost quantitative yields.

**44501**

**What Makes Energy Transition Possible in Germany: Focusing on Factors at Macro-Level**

Seoyong Kim, Ajou University, South Korea

Jaesun Wang, Honam University, South Korea

A lot of countries experienced the change of energy system, i.e., energy transition. Germany is the leading countries in energy transition. After Fukushima accident, German government announced the phaseout of nuclear power energy and new version of energy transition, i.e., Energiewende. The Energiewende is the planned transition by Germany to a low carbon, environmentally sound, reliable, and affordable energy supply. It includes greenhouse gas (GHG) reductions of 80–95% by 2050 (relative to 1990) and a renewable energy target of 60% by 2050. Germany has made on its GHG emissions reduction target, making a 27% reduction between 1990 and 2014. Our study aims to analyze what factors contribute to making the energy transition in Germany. In particular, we will focus on the macro-factors such political, environmental, social and geographical factors. We argued that the configuration of various factors at the macrolevel makes energy transition possible in Germany.

**44718**

**Sejong Puzzle: An AR Based Fun Geometric Math Teachware**

Young Jo In, Seoul National University of Science and Technology, South Korea

Sean Hay Kim, Seoul National University of Science and Technology, South Korea

We are developing a teachware app implemented by Augmented Reality (AR) technology. Recent interests on AR technology have promoted a number of AR-based teachwares for children. However, most of them simply show users 3D images to intrigue them when users attach cards or books onto camera. Sejong Puzzle is designed not only to give fun to children, but also to help them understanding spatial perception and developing logical reasoning, and to eventually teach them geometric math. We first have identified user's needs on geometric math teachwares by user segmentation with surveying and deeper interviews with prospected client children. Then we have developed detailed design guidelines using user journey maps. The prototype app presents introductory examples to make puzzles in the AR environment with diverse pictures, illustrations, 3D objects, and cartoon characters for intriguing children. Currently we are on verification process that how children react over the puzzles that they have perceived difficult, and eventually we plan to measure how much their spatial perception have developed and logical reasoning have been improved, compared to when they do not know of Sejong Puzzle.

**44779**

**High-Efficiency Arsenic Immobilization in Soil Using Nano-Sized Ca/CaO and Phosphate Compound**

Yumi Katayama, Hachinohe Institute Technology, Japan

Misato Takahashi, Prefectural University of Hiroshima, Japan

Yoshiki Kawai, Prefectural University of Hiroshima, Japan

Yusaku Imasaka, Prefectural University of Hiroshima, Japan

Yoshiharu Mitoma, Prefectural University of Hiroshima, Japan



**Contamination** of soil by heavy metals caused by naturally occurring or human factors (e.g. elution from landfill waste) has become increasingly common in economically developing countries. Recently, in pursuit of Green Chemistry efforts, many researchers have developed environmentally friendly insolubilization techniques that use milder conditions and which entail lower costs. We have developed an insolubilization method incorporating a simple grinding process that achieves approximately 95–99% immobilization of heavy metals (As, Cd, Cr, and Pb) in soil using a new dispersion mixture (25 wt%) of nano-sized metallic calcium (Ca) and calcium oxide (CaO) (Y. Mitoma et al., Arch. Environ. Contam. Toxic. 2013). Moreover, in the presence of interstitial water in soil, an improved mixture of nanoCa/CaO with  $\text{NaH}_2\text{PO}_4 / 5\text{H}_2\text{O}$  achieved immobilization with greater than 99% efficiency (Y. Mitoma et al., Environ. Prog. Sustain. Energy 2016). Results show that hydroxy apatite formed as a strong coating by this method. This study investigated a sophisticated immobilization method using various phosphate materials to form apatite. As-polluted granite soil (100 ppm) was mixed with nano Ca/CaO (2:5) and phosphate (e.g.  $\text{Ca}_3(\text{PO}_4)_2$  or  $\text{Ca}_2\text{P}_2\text{O}_7$ ) by mortar under ordinary  $\text{N}_2$  pressure for 60 min. The 1 g of treated soil was added to 10 mL of distilled water and shaken for 6 h at 200 rpm for elution test as a Japanese standard method. After filtration, the solution was measured using ICP-OES (As = 189.042 nm). Results showed greater than 99% immobilization efficiency using only 1 wt% of nanoCa/CaO and calcium phosphate.

**44840**

**Analysis on Determinants of the Public's Energy Preference: Comparison Between Countries**

Sangryool Kim, Chosun University, South Korea

Jaesun Wang, Honam University, South Korea

This study investigates the public's preference for energy sources in a situation where, after the Fukushima nuclear power plant accident, the public's risk perception on nuclear power energy and the expectation of alternative energy are increasing. The higher the interest in alternative energy, called renewable energy, it is also intensified debate about it. The choice of an energy source is an important policy issue of the country. Therefore, the opinions of the public who are affected by the policy should be an important factor in the decision of the country's energy source. In this study, as increasing of global debate on pros and cons of nuclear energy, increased interest in alternative energy, and various debates in the process of selection of energy sources, we analyze what are the people's preferences for energy sources, and what factors influence their preferences. Since the debate on energy sources, including nuclear energy, has become a global issue after the Fukushima accident, this study compares the preference and influence factors of national energy sources on the data of major countries. The purpose of this study is to elucidate the tendency of global energy preference system and common influence factors by analyzing the difference of preference system of energy sources and influence factors by countries.

**45098**

**Green Reusable Adsorbents: Magnetic Nanocomposites for Cost-Effective Remediation of Contaminated Water**

Angela Maria Gutierrez, University of Kentucky, United States

Thomas Dziubla, University of Kentucky, United States

J. Zach Hilt, University of Kentucky, United States

The constant growth in population worldwide continues to put forward the need for access to safe, clean water to meet human needs. There is a need for cost-effective technologies for water and wastewater treatment that can meet the global demands and the rigorous water quality standards, all whilst maximizing pollutant efficiency removal. Current remediation technologies have failed to meet these needs. Nanotechnology has recently been sought as a promising field to help achieve these goals. The use of iron oxide magnetic nanoparticles as nanoadsorbents has led to a new class of magnetic separation strategies for water treatment. In our work, we developed magnetic nanocomposite systems able to capture polychlorinated biphenyls (PCBs), as model organic pollutants, in aqueous solution, providing a

cost-effective water remediation technique. As binding agents, we have incorporated modified forms of nutrient polyphenols found in berries (quercetin) and turmeric (curcumin) with expected affinity for chlorinated organics, providing a green approach to remediation. Furthermore, when exposed to an alternating magnetic field (AMF) the adsorbents can be regenerated offering a low energy and low-cost regeneration alternative to traditional used methods. Overall we have been able to develop a water remediation technology with widely available materials that maintains low production and operation costs, is reusable and does not require intensive training, allowing for its use in contaminated areas around the world.

**45140**

**A Solution for the Educated Cosmetic Choice to Reduce Cosmetics Waste and Replacement Cycle**

Gayoung Kang, Seoul National University of Science and Technology, South Korea

Sean Hay Kim, Seoul National University of Science and Technology, South Korea

There are increasing international concerns in reducing plastic waste. Although cosmetic companies proclaim environment-friendly marketing strategies, it seems to be still hard to replace the plastic cosmetic containers with dissolvable materials. Also if the purchased cosmetics do not fit for customer's demands, they are likely to be thrown away. Eventually it causes significantly shorter life cycle of cosmetics and plastic wastes. This study intends to prolong the life cycle of cosmetics by exactly informing consumers what their skin conditions are, thereby what cosmetics they should select. Therefore, this study introduces an application that accurately diagnose the skin condition by the Big Data analysis, and also helps customers select the right cosmetics. First of all, a device with diagnosing functions periodically measure customers' skin conditions, and then the measured data are analyzed to search for appropriate chemicals and ingredients. Based on the analytics, customers are eventually educated concerning the cosmetics appropriate for my skin type among numerous types of cosmetics. The more the customer accumulate the historical skin data and their purchase, the more refined choices of cosmetics would be recommended. Additionally, when customers purchase cosmetics, the application indicates whether or not the cosmetics of interest fit for customer's skin condition intuitively and quickly using the AR (Augmented Reality) based ingredient analytics. In short, this paper purpose to promote the educated choice of cosmetics with which customers are satisfied for a long term, and reduce the plastic wastes due to the wrong choice of the cosmetics.



## Friday Session I: 09:00-11:00

Room: *To be Announced in Final Schedule*

Session Topic: Education, Administration & Assessment

Session Chair: *To be Announced in Final Schedule*

### **44634**

#### **Independence Meets Interdependence Within a Cohort Model of Special Education Teacher Candidates**

Robert Sumowski, Georgia College and State University, United States

Roddran Grimes, Georgia College and State University, United States

Students who experience educator preparation via cohort-based teaching models find themselves experiencing the occasionally contrasting dynamics of independence and interdependence on a daily basis. While the performance of teacher candidates' work product at the college level is measured individually through both college-based and independent external assessments, the cohort-based teaching model is largely dependent upon collaboration, shared experiences, and encourages candidates to view themselves as part of the whole rather than as individuals pursuing the goal of becoming P-12 teachers. While there are instances where this dichotomy is pronounced such as in the assignment of grades, the independent nature of field-based student-teaching experiences within separate classrooms across different schools, and individualized feedback and direction from instructors, the independence and interdependence often work hand-in-glove when candidates' individual experiences are brought back to the group for the purposes of reflection, collective analysis, and brainstorming solutions to field-based challenges encountered during student-teaching experiences. Presenters will discuss how the interaction between candidates' independent personal experiences and the cohort model's interdependent emphasis on group reflection, ongoing peer, instructor, and emotional support, networking, and shared experiences provide Special Education teacher candidates with meaningful learning experiences.

### **44760**

#### **Real-Time Grade Books and the Metric Culture of Schooling**

William Staples, University of Kansas, United States

In my book, "Everyday Surveillance" (2014), I focus on the relatively mundane techniques of keeping a close watch of people – what I have dubbed the 'Tiny Brothers' – that are increasingly present in the workplace, school, home, and community. Nearly all these kinds of 'data sponges' collect quantified measurements regarding an individual's movements, behaviors, and activities. In some cases, these technologies encourage 'self-' or 'participatory monitoring' so that workers, students, and others may use the information collected to improve their own standing. One example of this phenomenon are internet-based student information systems (SIS) that offer students, parents, teachers, and administrator's immediate access to detailed student profiles. One feature called 'Student View' permits learners to view their teacher's grade book in real-time. I will report on in-depth interviews with a sample of these school stakeholders focused on how some students engage in intensified 'self-tracking' of performance metrics. Interviewees report that the system encourages high performing students to obsessively monitor their grades through smartphones and other devices, frequently comparing their performance metrics with other students, and generating anxiety for themselves and their parents. Consequently, participant narratives suggest these systems intensify both organizational and 'participatory monitoring' of student performance and foster micro-level assessments of their everyday lives.

**44424**

**Experiences and Attitudes of Student Teachers Towards the Organizational Culture of a Faculty of Education**

Zilungile Lungi Sosibo, Cape Peninsula University of Technology, South Africa

Literature suggests a symbiotic relationship between organizational culture, organizational effectiveness and heightened stakeholder performance. Whereas a lot has been written on organizational culture, little, if any, especially in the context of South Africa has been documented about university students' attitudes and experiences of organizational culture and implications for the transformation of higher education, as well as its impact on student teachers' well-being, morale and performance. Yet, organizational culture contributes immensely to the teaching and learning environments and has a tremendous influence on whom and what students become: their identity- after they graduate. Furthermore, organizational culture has an effect on students' motivation, retention, and success rates. The purpose of this research study was to investigate the attitudes and experiences of first to fourth year student teachers of the organizational culture/climate of their Faculty of Education. The objective was to uncover their deep-seated feelings about various aspects of this culture, and to suggest implications and recommendations based on the results found. Critical theory and Bandura's social learning theory underpinned this study. For this study, quantitative and qualitative data were collected through close-ended questionnaires and interviews from approximately 600 Bachelor of Education student teachers. The sample was purposive and convenient. Results revealed that some students found some aspects of the culture enabling while the majority experienced the culture as traditional, bureaucratic, and toxic, and stifling their creativity, autonomy, spontaneity and development. These results point to the need for radical transformation of the mindset of the faculty leadership and staff.

**42716**

**Comparing a Skills-Focused English Test Against a Lexico-Fluency English Test for International Students in Higher Education**

Amanda Muller, Flinders University, Australia

Michael Daller, University of Reading, United Kingdom

International students need to establish that they have sufficient language skills to commence their university degree in countries like Australia, USA, New Zealand, etc. Two formats of English test, the skills-focused IELTS and the lexico-fluency test C-test, will be introduced and their differences explained. The talk will then ask the question of which test is best suited to evaluate future competence in different aspects of university education. For example, students doing nursing at university undertake both academic studies and clinical venue placement. The talk will draw on data from a study that measured competence at the start of the year and grades achieved by the end of the year. A cost-benefit analysis of each approach to testing English proficiency will be given, and further comments provided on the scope of both tests for other purposes, within the education sector and beyond.

## Friday Session I: 09:00-11:00

Room: *To be Announced in Final Schedule*

Session Topic: Education, Interdisciplinary, Pedagogy, Education & Difference

Session Chair: *To be Announced in Final Schedule*

### **43233**

#### **The Use of Multimedia to Help Dyslexic Students in Singapore Primary One in Mother Tongue Language Learning**

Weijie Liu, National Institute of Education, Singapore

Mother Tongue language is a compulsory subject in Singapore primary school education. However, for children with special needs, especially dyslexia, it is difficult for them to learn Chinese through traditional ways. Although multimedia resources in Education have been extensively studied in Singapore, and the current teaching resources for teaching Chinese in Primary School has been converted to both online and written resources, little is known about the impact of multimedia resources in writing skills of Dyslexic children who are learning Chinese Language in lower primary schools in Singapore. Thus, this article will focus on comparing the effectiveness of multimedia teaching and traditional teaching methods of Chinese Language Learning of Primary One Dyslexic students in Singapore. This research found that the achievement of dyslexic students in Chinese sentence writing skills through multimedia teaching resources better than the achievement of dyslexic students learning through the traditional instruction. It also found that students prefer multimedia teaching resources than traditional teaching resources as they are more interesting, lively and engaging. This study includes pre-test and post-test that use mix approaches research design. The researcher will use quantitative approach, specifically, sampling method, to compare both the pre-written-test and after-written-test. We will also conduct 1-1 interviews to know more about the preferences of the participants. Though the result might show multimedia resources have positive impact on improving children's writing skills, however, it might not be good for children's handwriting skills. This needs to be proved by further research.

### **44444**

#### **The Arte Project: Taking the Burden Out of Burden of Proof**

Traci-Ann Garrad, University of New England, Australia

There has been a concerted effort to ensure that educators are employing evidence-based practices (EBPs) when working with students with autism spectrum disorder (ASD). International reviews, such as the National Autism Centre's Standards Project and the National Professional Development Center on autism spectrum disorders' Report, have provided guidance on what approaches are currently recognised as EBPs. However, it is important to continue to recognise adaptations of current EBPs and innovations in practice to continue to build upon and inform research. The ARTE Project is designed to address this very need through capturing details on adaptations, approaches and innovation in practice to meet the needs of individuals with ASD. Through collaboration, the autism community, researchers, teachers and educators can work to capture practice that informs research which informs practice. The ARTE project is a step toward bridging the research to practice gap, enabling education community members to learn from and through each other. Results from the ARTE pilot project will be discussed as well as future steps to open the program internationally to build an effective online teaching and research community. The ARTE Project consists of an online tool that captures subscribers input of teaching strategies when working with students with ASD, assigns them to EBP categories and provides the focus for future research to record efficacious approaches from community members and educational practitioners.

**44715**

**Student's General and Sports Specific Behavior Towards Participation of Classmates with Physical Disabilities in PE Class**

Jerrecho Pituk, De La Salle - College of Saint Benilde, The Philippines

The study utilized the planned behavior theory to investigate the determinants of students' behavior towards classmates with physical disabilities (PD) in college physical education (PE) class. In particular, it examined how students' attitude, subjective norms, and perceived behavioral control could directly influence their behavior in accommodating classmates with PD (general behavior) and their behavior in modifying the rules of sports of games (sports specific behavior) for their classmates with PD. Responses from 397 college PE students in a private tertiary school in the Philippines were studied using the variance-based structural equation modelling approach. Analyses reveal that students' attitude, subjective norms and perceived behavioral control is correlated to both general and sports specific behavior. However, path analysis show that attitude is the only predictor of general behavior while attitude and subjective norms are the two predictors of sports specific behavior. Results indicate that attitude plays the most significant role in predicting non-physically disabled students' general and sports specific behavior in an inclusive PE context.

**44595**

**"Group-Oriented Individualization": A Model to Achieve the Goal of Inclusion**

Peter Karlsudd, Linnaeus University, Sweden

Individualization is often shown as something that should be set up to suit individuals. The meaning of the term is interpreted as an adaptation to, for example, the pupils orientation, maturity, abilities, conditions, experiences, interests, goals and needs. The Swedish School's mission has over time changed towards individualizing both in terms of knowledge and democracy. This trend becomes apparent in the curriculum, in goal formulations, in direct school work and in society as a whole. In the last decade, categorization and selection to special groups and schools has increased drastically. Many times, this is done with arguments derived from the principles of individualization. Through an analysis of curricula and results from research relating to individualization in school contexts, we can find a shift of focus from students as a group and as community members, to individuals. Today, education is focussed on the single pupil and, there are indications that the teaching approach has become increasingly individualized. The collective goals have been placed in the background for more individualistic arguments and objectives which seem to have accentuated the vulnerability of the pupils with special needs. Societal aspects are nowadays not as visible as the individual. Individualization need not only mean to work alone. A group-oriented individualization where pupils work together with differentiated goals and working methods can be a way towards higher goal achievement for all pupils. In this paper, a model is introduced to systematically improve the quality of learning in a group-oriented and inclusive direction.

## Friday Session I: 09:00-11:00

Room: *To be Announced in Final Schedule*

Session Topic: Teaching Experiences, Pedagogy, Practice & Praxis

Session Chair: *To be Announced in Final Schedule*

**44857**

### **Generations in the Classroom: How Your Childhood Affects Your Pedagogical Style**

Kristin Scroggin, genWHY Communication Strategies, United States

In this presentation, the presenter, a generational diversity expert, teaches attendees how the time they grew up in affects the way that they teach students or lead co-workers. By examining generational trends on work ethic, intelligence, respect, and social trends, the presenter can help you understand why certain things get under your skin more than others. This funny, and informative presentation will have you understanding that maybe people aren't doing things JUST to ruin your day.

**42408**

### **Responsibility Theory (A New Consideration in Neuroeducation) A Brain-Based Immersive Systematic Self-Talk Sequence Learning Program**

Ragnar Purje, Central Queensland University, Australia

Responsibility Theory® is an applied brain-based immersive systematic self-talk neuroeducation program, the aim of which is to empower teachers and enhance constructive academic and positive behavioral social outcomes for students. At the heart of Responsibility Theory® are ten precepts. Associated with these ten precepts is the personal intellectual interpretive engagement and the associated cognitive and behavioral application of the ten-precept-linked working language framework of Responsibility Theory®. The working and natural language of Responsibility Theory® draws from and filters its descriptive utterances, talk, text, speech and discourse considerations from these ten precepts. Responsibility Theory® has two broad social goals. The first is the personal application of the program itself. The goal here is to inform the individual that through the application of their own contemplative intellectual analysis, and allied reflexive utilisation of the working language of the ten Responsibility Theory® precepts, that this deliberate conscious and intentional intellectual engagement (along with the ten precepts), will hopefully assist the individual to develop and successfully apply their personal self-empowering possibilities for the remainder of their life. The second goal of Responsibility Theory® is to achieve life-long enduring, positive classroom-centred pedagogical, academic, behavioural, personal, and social outcomes.

**44847**

### **Use of Literary Projects to Motivate Literature Students to Read**

Mark Lawrence Fernandez, Mariano Marcos State University, The Philippines

Using literature and literary projects, this study aimed to motivate resistant college students to improve their learning literacy. Thirty-seven Lit 1 (Literatures of the Philippines) students were tasked to read and work on projects adopted from Margarita Felipe-Fajardo's taxonomy of Best Practices in Language and Literature Teaching (2011) that demonstrate their understanding of the literary texts. Projects were rated using the impression method with scores ranging from 1 to 10 based on the content, presentation, and date of submission of the projects. Interestingly, the students have high reading and writing literacy as reflected in the overall rating of the projects' scores of 8.49. Moreover, from the variety of projects submitted, it can be gleaned that students have high degree of motivation as well as high level of cognition based on the content, detail and presentation, breadth and depth of ideas presented, and language use. From these results, the

study recommends that focus should be given to learners in that reading instruction, classroom environment, and other conditions for learning should all contribute to their interest and eventually their literacy. Teachers, therefore, have to create appropriate and effective ways to minimize the consequences of resistance to literary reading among learners. Moreover, school administrators should take part in this goal by supporting teachers' professional development, sponsoring discussions and training to determine effective practices in reading instruction and to ensure that classroom environments and instruction include a strong focus on student motivation and cognition.

**44772**

**The Value of Motivational Theory in Education**

Karin Weman Josefsson, Halmstad University, Sweden

Motivation is the driving force behind all behaviors, from posting cat pictures on Facebook to finishing an exam – and motivation determines how much, how often and how passionately we do it. Besides providing expertise and knowledge, teachers can create good opportunities for commitment, learning and development among learners – or the opposite – by influencing the motivational climate. Self-determination theory (SDT) describes how teachers' communication style can affect motivation, which in turn affects learning, achievement, development and commitment among learners. SDT also provides reliable methods based on the significance of basic psychological needs considered essential for motivation and self-regulation in all humans; autonomy, competence and relatedness. The need for autonomy involves volition and self-determination, the need for competence is about feeling effective and capable, and the need for relatedness is about feeling affiliated to other people. Social contexts that satisfy these needs nourish personal involvement, sustainable motivation and wellbeing. When the needs contrarily are thwarted, e.g. by using punishments, force or guilt, learners will feel controlled, incapable and excluded, which is related to cheating, nonattendance and boredom. To inspire interest and dedication teachers could therefore benefit from applying SDT in the classroom to stimulate a favorable motivational environment where learners have the opportunity to grow and thrive, not only within the specific subject, but also as a person. Such social climate will also loop back and influence the teacher's own experience, basic need satisfaction and motivation; constituting the dependence and interdependence of classroom dynamics.



## Friday Session I: 09:00-11:00

Room: *To be Announced in Final Schedule*

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

Session Chair: *To be Announced in Final Schedule*

### 44519

#### **Diving into the Vortex: Examining Math Identity, Science Self-Efficacy, Sex, and Race**

Talisa J. Jackson, George Mason University, United States

Joanna G. Jauchen, George Mason University, United States

As the global population increases to approximately 8.3 billion people, the United States National Intelligence Council (2012) predicts a 35% worldwide increase in demand for food, 40% increase in demand for water, and a 50% increase in demand for energy. Thus, educating and cultivating a workforce that can identify ways to meet these demands will be paramount; the U.S. Bureau of Labor Statistics' predicts that science, technology, engineering, and mathematics (STEM) jobs will be among the fastest growing fields. However, STEM fields continue to struggle to attract and retain men from historically underrepresented groups and women (NSF, 2017). The underrepresentation of women, Blacks, and Latinxs becomes an even more pressing as demographic models of the US predict a future population that is majority-minority (Landivar, 2013; Ortman, & Guarneri, 2009). Therefore, identifying ways to make STEM accessible to all, and increase representation in STEM-related careers is vital to addressing future global needs (NSF, 2013; Committee on Underrepresented, 2010). Previous work has shown that mathematical identity and science self-efficacy are factors in choosing STEM disciplines (Boaler & Greeno, 2000; Chemers, Zurbruggen, Syed, Goza, & Bearman, 2011). Our presentation will explore how mathematical identity and science-self efficacy interact with each other and differ by sex and race. We draw on literature and multiple regression analysis to examine the complex interplay between these constructs and reflect on how our results may impact both current and future practitioners.

### 45097

#### **Community, Peace and Sustainability: Leveraging Institutional Positionality to Affect Local and System Change**

Diana Rice, Dawson College, Canada

In October 2018 the IPCC published a predictable, but no less grim, report on where 'we' are situated vis a vis climate change and what is yet to unfold. Despite over a hundred years of scientific concern from scientists on the human effects of industrialization and globalization we now face out of control wildfires, drought, desertification, intensity and frequency of hurricanes and catastrophic flooding. The report clearly outlines what experts have emphasized for years, there is no one strategy that will prevail in order to stave off impending planet-wide economic, social and environmental disaster. We need strategies that work with the institutionalized systems currently in place and organizations operating at the community level. International, national, or regional policy is not sufficient without community level buy in. Community level organizing is rarely sufficient to cement system-wide change. The bridge between institutional systems and community is education. Changing our educational institutions should be one of the primary strategies to tackle climate change. Post-secondary educational institutions are currently one of the best placed bridges between governments and communities because they wield power with and within community and government systems while simultaneously balancing the tension between these two groups. Educational institutions are both firmly within and of the system and yet are firmly embedded in and creators of community. This presentation will introduce the work done in this vein at Dawson College and their network



of institutional and community partners that aim to connect and model solutions based on interconnecting community, institutions and sustainability.

**45079**

**Research Dissemination for Community Health and Development: Sharing What We Know with People Who Make Change Happen**

Jordan Miller, Arizona State University, United States

Background: Translational research has the potential to bridge research and practice to improve community health and development. Significance: Disseminating research findings to diverse audiences, as in the translational research paradigm, facilitates evidence-based practice and policy development. This paradigm is particularly well-suited for impacting social determinants of health, like urban built and food environments, because those environments are shaped largely by laypeople and policy-makers, rather than scientific researchers. Disseminating research findings beyond academic audiences is key to establishing a foundation for evidence-based action. Through broad dissemination, research findings for what works to promote health are translated into the policy decisions and individual choices that shape our world. Objectives and Methods: To apply the translational research paradigm to urban agriculture and built environment improvements. A framework for disseminating information to inform policy change and advance community health will be presented. A rationale for broad dissemination of research findings, including disseminating to decision-makers and the public, will be proposed. Three channels for dissemination will be discussed: policy briefs, lay journal articles, and higher education coursework to prepare emerging professionals. The Diffusion of Innovations Theory will be explained and applied to the process of generating change within communities. Application of communication theories to research dissemination in community health and development will be explored.

**44576**

**Rec University: Bridging the Education Gap Through Sustainable Education**

Chris Chamberlain, California State University East Bay, United States

A 2016 study conducted among California Park & Recreation Society (CPRS) members found that nearly 70% of members working in the recreation industry did not have a bachelor's or master's degree in Recreation Management. Those with other degrees hired by recreation agencies did not have the basic knowledge necessary to be a recreation professional. Based on this research, faculty from the Department of Hospitality, Recreation & Tourism at Cal State East Bay worked with CPRS staff and the local CPRS district to comprise a list of essential topics that could help train those without a recreation background to be better prepared as professionals in the industry. In 2017, Rec-University (Rec-U) was launched and comprised of a series of focused three-hour courses designed to provide CEU credits. Findings from the first year of Rec-U indicated participants found the information useful and easily applicable in their job. They liked the pairing of academic, theory-based learning, with practical application presented by those working in the field. Implications of the Rec-U program are far-reaching: The university is seen as a sustainable resource to local recreation agencies; provides low cost education and training that agencies might not be able to provide; creates a sustainable industry by helping close the knowledge gap of professionals without traditional recreation management training; it provides an opportunity for local professionals to rediscover additional degree programs and certificates offered through the university, and it will help develop a statewide certificate program for recreation management professionals.

## Friday Session I: 09:00-11:00

Room: *To be Announced in Final Schedule*

Session Topic: Interdisciplinary: Higher Education

Session Chair: *To be Announced in Final Schedule*

### 44300

#### **Demystifying Higher Education: High School Programming to Support First Generation Youth in Post-Secondary Attainment**

Dawn Zinga, Brock University, Canada

Danielle Molnar, Brock University, Canada

Natalie Spadafora, Brock University, Canada

The Starr Academy is a school offering unique programming for students who are the first generation in their families to pursue post-secondary education. As the first of its kind in the Ontario public system, Starr Academy was born out of the recognition that education plays a vital role in helping children overcome the effects of life's challenges. Focus groups were conducted with 55 students enrolled in the program. Students were drawn from grades nine through twelve and participated in grade-specific groups. Students were asked to reflect on the following areas: academic programming; guidance and adjustment programming; social impacts of the program; higher education contact and knowledge. Several key themes emerged from the students' reflections. Students spoke candidly about the impact of joining the program on their existing friendships, the benefits provided by the program, and offered suggestions for improvements to the program. Whereas several themes were consistent across all grades, such as frustration over the required after-school activities and concerns around bussing and extended days, other themes such as satisfaction with guidance provided by school administration and teachers varied by grade. Students spoke strongly about local college and university partnerships that provided them with more exposure to higher education contexts and how this served to demystify higher education. Students also stressed the importance of guidance and adjustment programming as key supports. We offer lessons learned from the students' reflections that speak to providing programming to encourage first-generation youth to pursue postsecondary education.

### 44170

#### **The Relationship of Online Social Networking and Loneliness**

Abby Halston, Chaminade University of Honolulu, United States

Darren Iwamoto, Chaminade University of Honolulu, United States

Social network sites (SNS) allow us to stay in contact with family and friends as well as connect us globally with others. In 2018 alone it is reported that 7 in 10 Americans use social networking to socially connect, engage with news content, and for entertainment purposes, with 74% of Facebook, 63% Snapchat, and 60% of Instagram users logging into their accounts daily (Pew Research Center, 2018). SNS has become an important part of daily living. With increased online networking utilization there has been a differentiation in whether SNS affects loneliness in users due to their behaviors in online social networking. Research that categorizes users as passive have found increased self-ratings of loneliness (Yup, Trub, & Rosenthal, 2015; Matook, Cummings, & Bala, 2015) where other researchers have found the interactive category of users to have decreased self-ratings of loneliness (Detters & Mehl, 2013); Burke, Malow, & Lemto, 2010), and active users research has demonstrated inconsistencies in whether it increases or reduces loneliness (Yang, 2016). This study continues this research into whether college students have similar self-ratings of loneliness when their online social networking use is categorized (passive, interactive, & active) as well as

supporting the need for future research and intervention programs to assist students with adjusting to the interpersonal and intrapersonal stressors of higher education.

**45120**

**From Belonging to Becoming: A Cultural Journey From University to Workforce**

Marco De Sisto, RMIT University, Australia

Genevieve Dickinson, RMIT University, Australia

Afreen Huq, RMIT University, Australia

Employers of university graduates view the development of necessary employable 'generic' skills as the responsibility of higher education institutions (Ng, Van Dyne, & Ang, 2009). Amongst such skills, cultural intelligence has received much attention, particularly in Australia, due to the high level of cultural diversity characterising the workforce environment (Parrish & Linder-VanBerschoot 2010). Cultural Intelligence Evenings initiative was developed in 2017 as a social and extracurricular activity linked to the undergraduate course BUSM3119 Human Resource Management (HRM) at RMIT University (Melbourne - Victoria), where the student cohort is mainly composed of sophomores. The study aimed to explore the impact this initiative has on improving student experience, and then further demonstrate how to develop CQ skills and student engagement within a diverse student cohort. Research findings indicate that the Cultural Intelligence Evenings initiative has positively impacted 134 students by helping them in getting ready for life and work as well as in shaping their own sense of belonging where they can feel they are travelling through their academic journey with a group of peers with similar interests and experiences. For the School to truly offer a transformative student experience, opportunities need to be created that facilitate the development of a student's social and cultural capital, strengthening disciplinary identity and fostering a broad sense of connection and belonging to not only the discipline but also to their peers and the industry.

**44664**

**A Model of What Really Happens When University Students Peer Coach Professional Skills**

Lyle Ernest Benson, MacEwan University, Canada

Robert Gurney, MacEwan University, Canada

**Abstract:** The purpose of this study is to investigate what really happens when university students do peering coaching of professional skills, i.e. does counselling, mentoring, or tutoring also take place? Student peer coaches and student coachees participated in this course-based research of peer coaching professional skills at MacEwan University during four academic term. After each peer coaching, session data was gathered through completion of coachee reports. Data collection also included coachee demographics, the professional skills coached, and coachees perceptions of confidence in their personal development of coached skills. In the initial study the highest number of requests, in descending order, for coaching the professional skills was: writing, presentations, library research, technology, team work, and case study analysis. The results also indicated that because of the peer coaching sessions, coachees rated their level of self-confidence high in learning all the professional skills. As well, coachees made requests for help in other areas that were not identified as a professional skill, which is the purpose of this study. The first result found that even though coaching of the professional skills took place in most of the peer coaching sessions, there was still mentoring, counselling, and tutoring taking place in a significant number of peer coaching sessions. The second result was the verification of a university student peer coaching professional skills model. The practical implications of this study are it can act as a foundation for university educators' and business professionals to improve their current professional skills and/or peer coaching programs; or assist in creating such programs.

## Friday Session I: 09:00-11:00

Room: *To be Announced in Final Schedule*

Session Topic: Water and Sanitation

Session Chair: *To be Announced in Final Schedule*

### **42604**

#### **Biologically Active Filtration as a Sustainable Water Treatment Process in a Changing Global Climate**

Michael J. McKie, University of Toronto, Canada

Susan A. Andrews, University of Toronto, Canada

Robert C. Andrews, University of Toronto, Canada

Due to climate change, nutrients (including carbon, phosphorus and nitrogen) as well as anthropogenic contaminants are expected to increase in lakes and rivers. As a result, drinking water treatment facilities may struggle to achieve water quality regulations; treatment process improvements are needed to address these changes (especially those which rely on chemical additions). Biologically active filtration, 'biofiltration', utilizes naturally occurring microorganisms to consume nutrients and degrade contaminants without the need for additional chemicals. Biofiltration can be implemented into existing drinking water treatment facilities by preventing oxidant exposure to filter media, thus allowing biofilm development. Water quality-related treatment objectives include nutrient removal, reduction of disinfection by-product (DBP) precursors and micropollutant (pharmaceuticals or taste and odour causing compounds) degradation. This presentation summarizes over five years of pilot-scale biofiltration research examining treatment performance, alternative operating conditions and advanced monitoring techniques to improve operational control. Pilot-scale biofilters were operated at six municipalities in Ontario, Canada, to develop an interdependent network of facilities with the goal of optimizing treatment across various source waters. Results indicated that incorporation of biofiltration at all locations examined could reduce nutrients, DBP precursors and micropollutants due to the unique microbial communities that develop. A variety of alternative operating conditions improved biofilter performance with respect to nutrient reduction, which could be readily implemented at other water treatment facilities. Ultimately, biofiltration may allow water providers to address future water quality challenges; interdependent groups of water providers sharing knowledge is critical to ensure improved water quality to the public.

### **44476**

#### **Use of Moving Bed Biofilm Reactors for Biodegradation of Micropollutants in Biological Wastewater Treatment Plants**

Yonghwan Kim, Daisung Green Tech, South Korea

Seungbae Oh, Daisung Green Tech, South Korea

Gwonho Joo, Seoul National University, South Korea

Miran Lee, Daisung Green Tech, South Korea

We investigated the effectiveness of using a moving bed biofilm reactor(MBBR) on micropollutant removal efficiency in a biological treatment process. To represent the same influent condition and to minimize other variables, four parallel pilot plants (15 m3/day capacity) were installed in the existing WWTP in South Korea. All pilot plants were designed using the same dimensions based on A2O process, which consists of anaerobic, anoxic, and aerobic tanks and clarifiers. Two of the pilot plants were standard A2O process and the other two were inclusive of a bioblock in the aerobic tanks to be used as MBBR. Wastewater from distribution tank from the existing municipal wastewater treatment plant was treated. Removal efficiency was tested for acetaminophen, carbamazepine, diclofenac, sulfamethoxazole, trimethoprim, bisphenol-A, and

nonylphenol under different sludge retention times (SRT). All the target micropollutants were consistently detected in the influent in the range of 0.1 µg/L to 80 µg/L. While comparing MBBR and standard A2O process, clear differences in the micropollutant removal rate were observed. MBBR have been found to be more effective than the standard A2O on the most of target micropollutants removal. Also, it is demonstrated that longer SRT resulted in higher removal efficiency of micropollutant. It is recommended that applying MBBR and securing at least of 10 days of SRT can help removal of micropollutants in WWTP.

**42510**

**How is the Concept of Flourishing Central in the Move Toward Sustainability: A Case Study of the Aeolian Water Crisis**

Sara Hill Roe, Pajaro Valley Unified School District, United States

This presentation explores the role of the concept of flourishing as it moves toward sustainability by examining a theoretical case study of Lipari, located in the Aeolian Islands. Challenged by a lack of potable water, Lipari provides a tangible model of the interconnectivity of community agency and sustainable issues. This presentation examines the leading qualities associated with a flourishing society to determine the potential levers that would be most effective in shifting the islands from an unsustainable water system to a sustainably flourishing one. Using the framework of complexity, this presentation integrates a variety of fields such as ecology, economics, public policy, and sociology in developing a more comprehensive definition of the concept of sustainable flourishing.

**44426**

**Evaluating Effectiveness of Length of Closure in Remediating Coliform Contamination in Boracay Island**

David Caloza, University of the Philippines, The Philippines  
Dolores Cleofas, University of Santo Tomas, The Philippines  
Susan Abaño, National Water Resources Board, Qatar

The international tourist destination of Boracay Island was closed by national authorities last April 2018 due to the persistent high coliform concentrations found in its beach waters. The cause of the contamination is identified as inadequate sanitation systems whose outflow goes to the groundwater. This water in turn leaks out to the sea. The rationale of the temporary closure is to allow natural mechanisms to clean the groundwater – mainly by the shutdown of all coliform contamination sources, coliform die-off and flushing via recharge of rainfall. The period of closure is six months. With a first order die-off rate of 0.03/day for coliform bacteria in karst soils, computer simulations show that the period of closure removes 99.4 percent of the contaminant-marker – adequate to bring the contamination down to levels that are acceptable for recreational waters. A further extension of six months would most likely bring the contamination below detection limits.

## Friday Session I: 09:00-11:00

Room: *To be Announced in Final Schedule*

Session Topic: Culture, Peace & Social Justice

Session Chair: *To be Announced in Final Schedule*

**45118**

### **Between Independence and Interdependence; What Future for Doha's Cultural Heritage in a Global World?**

Djamel Boussaa, Qatar University, Qatar

Doha; the capital of Qatar is well known for its mega sports and conferences, and exhibition events, and has been during the last decade one of the most visited cities in the Gulf. Prior to reaching this strategic place in the region, Doha experienced a period of rapid growth through large-scale projects. All buildings with various 'star-architecture' styles can be found especially in its west bay area, which developed as the new global waterfront of the city. In order to provide space as part of the interdependence program, the bulldozer had to do its job of cleaning away several significant historic areas. In fact, old Doha is being still re-developed with unsympathetic global buildings and environments in perspective of the organization of the World Cup in 2022. Following this, people started to feel that something was missing in their environments, elements that make Doha independent and different from other cities in the Gulf. In other words, a search for artifacts that would reflect the city's cultural identity and distinctiveness started to emerge during the last two decades. We do believe that one way of rediscovering the cultural identity of the city is to go back to its first roots and try to conserve and sustain them. The main question to be raised here is: How can urban regeneration be a catalyst of rehabilitating the urban identity of Doha? In order to discuss this question, the two recent Souk Waqif and Msheirib regeneration projects will form the setting of this research.

**44434**

### **This Land is Your Land, This Land is My Land: Protecting Sacred Sites in Central California**

Kenneth Hansen, California State University, Fresno, United States

In this project, I compare two case studies in Central California that involve the potential development of traditional California Indian sacred sites. One case, Wahallish (a.k.a. Jesse Morrow Mountain), located east of Clovis on Highway 180 in Fresno County, represents a successful attempt to block development of land sacred to the Traditional Choinumne Tribe. A second case, Juristac (site of the proposed Sargent Quarry Project), in Santa Clara County, on land sacred to the Amah Mutsun Tribal Band, is ongoing and has yet to be resolved. Even in the 21st Century, tribal identity remains tied to the land. This study utilizes the most-similar case study design, along with participant-observation and personal interviews. Both political disputes involve corporate ownership of tribal lands held sacred by non-federally recognized California Indian tribes. Both involve issues of environmental quality – including impacts on air and water from the development of proposed gravel mines – which are of great import to the residents of Central California. Both also involve the use of similar inside and outside political strategies mobilized at the county level. I hypothesize that the solidary interest group nature of tribal governments as actors in policy issue networks is what makes the most difference in outcomes.

**45124**

### **The Role of Cultural Contents and Discourse on Sexuality and Minority in Korean Society**

Hyemi Lee, Kangwon National University, South Korea



This study examined how the Korean media has reported on sexual minorities for the past 100 years or so (1920-2018) through an analysis of big data. The study noted the role of movies as a form of art struggling to oppose 'projective hate' toward sexual minorities through a discussion of expression in the media. Upon the analysis of the Korean media by categorizing the periods from Stage 1 to Stage 5, it was ascertained that movies became an opportunity to bring about change in the discussion of sexual minorities in society. The expression of the sexual minority in movies helped combat a lack of representation as well as distorted expressions and misperceptions. In general, it is unlikely that we will personally encounter sexual minorities, and thus we get to experience and recognize them through what is expressed through the media. By bringing the problem at the bottom of the society to the surface through media expression of the sexual minorities, it creates a key agenda in our society. Expression in the media emphasizes problems that are neglected and avoided by the mainstream and brings them to the surface to create social opinion. This implies that cultural contents, such as movies, can become a strong weapon of recognition struggle able to naturally stand up to projective hate without using methods of protests or complaints.

**45149**

**What Can One Small Dot on the Linguistic Landscape Tell Us About Inclusivity in Japan?**

Ted O'Neill, Gakushuin University, Japan

The languages we encounter in our daily environment send messages about who is included and who is not included in the society. Examining the linguistic landscape, the "visibility and salience of languages on public and commercial signs in a given territory or region" (Landry and Bourhis 1997) is a way into understanding community actors. This presentation will use an analysis of eight months of pictorial sign data collected in Tokyo during 2018 to investigate inclusivity and behavior of East Japan Railway Company (JR-East, a segment of the former Japan National Railways) towards city residents and visitors. Advertising in a single station on the Yamanote Line was photographed monthly and organized by position, language(s), visibility, and contents. This is a top-down only study only to examine the formal communications of a large quasi-public institution over time in a single, defined area of one linguistic landscape looking for changes in perceived or intended audience(s), the privileging of contents and languages, and how these interact. A notably monolingual society which has formally and publicly embraced internationalization and globalization, how is this one significant player in Japan acting on these values as the resident population changes and the inbound tourist economy grows by leaps and bounds? What environment are they creating and for whom?



## Friday Session I: 09:00-11:00

Room: *To be Announced in Final Schedule*

Session Topic: Higher Education

Session Chair: *To be Announced in Final Schedule*

### 44506

#### **Using Evidence-Based Practice (EBP) Learning Outcomes to Prepare Undergraduate and Graduate Health Science Students for Professional and Academic Practice**

Shermeen Nizami, Carleton University, Canada

Flavia Renon, Carleton University, Canada

Teaching evidence-based practice (EBP) skills to medical and allied health students helps them develop knowledge, attitude and behaviours that lead to better informed decisions in professional practice. There is limited evidence supporting the value of teaching EBP skills to the broader audience of health science students. Integrating EBP instruction in undergraduate and graduate health sciences programs can better prepare students to evaluate and utilize health research in their future professions. Collaborating with professional librarians, the first three steps of the EBP model were taught to eighty second year, sixteen fourth year and seven graduate students. To achieve the learning outcomes associated with this model, students completed the following three tasks in their term project. Using the PICO(T) framework, students formulated a research question (1) and searched literature for best available evidence (2). They completed Critical Appraisal Skills Programme (CASP) checklists and worksheets accompanying the textbook to evaluate validity and clinical relevance of the research articles (3). In addition, we conducted brief intermittent open-ended audits to collect student feedback to assess changes in the students' knowledge, attitude and behaviour during the project. This approach also allowed the instructional team to respond to any issues that may arise as students progressed through the course. This pedagogy aims to scaffold EBP learning outcomes throughout the undergraduate and graduate health sciences program such that once students graduate they become skilled and informed professionals in academic, clinical or research settings. Other pedagogical outcomes and applications are also discussed in this paper.

### 44532

#### **Voluntarism in a Sustainable-Service-Learning-Engagement Basis for Fostering Graduate Students' Success in Higher Education**

Simoni Valadares, University of New Mexico, United States

Glenda Lewis, University of New Mexico, United States

The core tenets of students' success across universities when the issue of discussion is diversity in education and/or international education are learning, cultural engagement, and personal growth. Undeniably, all of these elements are very important for supporting students' success in higher education and many others can be included. This study argues that graduate students organization in higher education plays an important part for contributing to the successful path to be taken by students, particularly, through its volunteerism. A practice of being engaged in activities for providing services for peers and/or communities has a crucial role in impacting positively graduate students' lives and career. This study departs from a literature review on the topic of voluntarism in higher education considering mainly students-led organizations' voluntarism, and then it discusses in what extend voluntarism as a practice can be related to other important dimensions which are part of the scenario of universities, particularly those such as service, learning, experience, internship, community-based engagement, peer-mentoring, and leadership. This study also aims to contribute to place voluntarism within as a core value in higher education because of its significance for a lifetime experience of graduate students and for their journey not only in shaping a career

but also in allowing them to have opportunities to participate actively locally and to prepare themselves for leadership and being global citizens.

**44915**

**Inequalities in Higher Education in South Africa**

Sadhana Manik, University of KwaZulu-Natal, South Africa

Zilungile Sosibo, Cape Peninsula University of Technology, South Africa

Vuyokazi Nomlomo, University of Western Cape, South Africa

Misiwe Katiya, Cape Peninsula University of Technology, South Africa

As democratic South Africa attempts to overcome the imbalances of its apartheid past in higher education, by widening access to previously disadvantaged students, there are a host of challenges emerging which are threatening to undermine the transformative education agenda. This workshop presents discussion and an interrogation of some of the inequalities in public higher education institutions at present in South Africa, which require a nuanced understanding. The papers draw from three diverse public higher education institutions across SA providing qualitative and quantitative data on the inequalities presented. The workshop addresses 3 specific avenues of inequalities by 4 authors/ discussants, namely language as a barrier to success in higher education in SA, institutional culture as an enabling / disabling feature of HEIs and gender based violence as a threat to higher education in SA.

**44032**

**Changing the Monolith: Barriers to, and Opportunities for, Entrepreneurialism in Higher-Ed**

Brian DeLevie, University of Colorado Denver, United States

In 2013, The Progressive Policy Think Tank concluded the 20th-century models of higher education were broken and that to survive "a deep, radical and urgent transformation is required." In 2018, the prescience of that statement is being reflected in universities via ever-tightening budgets, decreasing available student populations, and ever-increasing student costs and debt. To combat these forces universities are trying a myriad of options including alternative credentialing, MOOCs, and professional certificates. Underpinning these efforts has been a drive towards greater entrepreneurialism and a search to develop new ways to transform and infuse classrooms with more business-like cultures (Hyslop-Margison & Leonard, 2012; Polster, 2005; Milley, 2016). Despite the well-documented economic, cultural and societal challenges facing universities the many logistic, administrative and political barriers to change are both complicated and personal. This paper looks holistically into the fundamental questions and challenges academia faces including: how can entrepreneurial approaches be encouraged and used to break down disciplinary silos (and associated systems of faculty governance, merit, and tenure) to create creative, innovative and entrepreneurial approaches of research theory, practice, and pedagogy; how can universities use their prestige and teaching acumen to strengthen ties to the private sector and create pipelines that lead towards student enrollment and employment; what are the conflicts with the stated and perceived mission of universities and how can the risk-averse nature of university administration be changed to encourage faculty and students to fail with purpose?

## Friday Session II: 11:15-12:45

Room: *To be Announced in Final Schedule*

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

Session Chair: *To be Announced in Final Schedule*

### 44919

#### **Methods to Enhance Classroom Management and Promote Learning Autonomy**

Blagoja Dimoski, Tamagawa University, Japan

Success in the language classroom is dependent on a host of factors, not least of which is a teacher's ability to successfully manage a class and his or her learners' ability to self-manage their own learning. The presenter will demonstrate a comprehensive classroom management system based on 1) student nameplates and 2) group management methods. The student nameplate is an extension of the initial design proposed by Kamibeppu, Kelly, and Fryckman (2003) and McLean (2012) and thus serves a far greater purpose. The current design, developed by the presenter, enables language practitioners to effectively monitor and manage class attendance, homework, rules, assessment, individual student progress and feedback, and much more. The group management methods that will be introduced promote greater learner-accountability by ensuring that each member of a group has specific responsibilities, which as a whole, enable the group to work more effectively. The presenter will also provide classroom examples of the materials and nameplates described above and discuss how they have not only enabled him to better manage his classes, and his students to better manage their own learning, but also how the system can be adapted by teachers to reflect their individual teaching contexts.

### 44402

#### **Reading Strategy Instruction Through Students' Cooperative Learning**

Yugang Zhou, DLIFLC, United States

One problem that is often seen in reading/translation classes is that students seem to know the meanings of all the vocabulary, however, the knowledge of words does not necessarily lead to a correct comprehension of a whole sentence, especially in terms of complex long sentences. With the use of dictionaries or online tools, one can easily know all the vocabulary in a sentence while still not understanding its overall meaning. The introduction of reading comprehension strategies to students could be helpful in this regard. Training in reading strategies is necessary for language learners of all levels. While language teachers are usually tempted to instruct reading strategies explicitly, intermediate and high-level learners oftentimes are capable of summing up strategies deductively by themselves. By analyzing complex sentences cooperatively, students discuss and negotiate meanings, give and receive feedback from each other, and benefit from observing how each other approaches and solves problems. This presentation first gives an account of a reading/translation class where students were encouraged to work out their complex sentence comprehension strategies through cooperative learning. And then the presenter will analyze the rationales behind the practices in this class, including learning strategy training, cooperative learning, think-aloud technique and learner autonomy. It is hoped that these methodological innovations can provide language teachers with some enlightenment in their future teaching career.

### 44954

#### **Teachers' Perspectives on Designing and Using Quizzes for Language Teaching and Learning**

Hungche Chen, Chang Gung University of Science and Technology, Taiwan

It is thrilling to take a group of students learning English in their first year of college, help them to build a strong foundation for thriving in this interconnected world and for other courses that may use English as a medium of instruction. To understand if students are achieving a specific learning goal, teachers use a variety of assessment tools. Of these tools, quizzes is often used by teachers who want to provide students timely feedback after each lesson or a short period of time. The study described in this article explored higher-education EFL instructors' backgrounds, their practices and philosophies with regard to quizzes. Twenty-six instructors at three universities in Japan were surveyed and interviewed. The findings indicated that most of the instructors had taken at least one graduate-level class in the area of second/foreign language with some training and experience in creating and marking quizzes. However, all the instructors who participated made little attempt to use quiz results to identify specific areas of course content that need greater emphasis.

## Friday Session II: 11:15-12:45

Room: *To be Announced in Final Schedule*

Session Topic: Professional Training, Development & Concerns in Education

Session Chair: *To be Announced in Final Schedule*

### 45212

#### **An Instructional Design Project: Cultivate Global Competence Through an Online Course for English as a Foreign Language Teachers**

Yu-Chieh Wu, University of Hawaii – Manoa, United States

Fostering global competence is crucial for English teachers to thrive in the era of globalization. To equip English teachers with necessary skills, the purpose of this instructional design project is to improve openness, respect for people from different cultural backgrounds and global mindedness for English teachers at an online course. Retrospective survey that includes the facet of 'perspective-taking,' 'interest in learning about other cultures,' and 'global mindedness' will be used to evaluate teachers' progress. After completing the online courses, English teachers are expected to be better prepared to cope with this multicultural society.

### 44643

#### **Facilitating Tabuk City National High School Employees Gender and Development Seminar-Workshop Through Cooperative and Collaborative Learning Approaches**

Doddie Marie Duclan, Tabuk City National High School, The Philippines

The study focused on cooperative and collaborative learning approaches as the strategy in facilitating employees' Gender and Development (GAD) Seminar- Workshop. It assessed participants' awareness level on selected GAD laws, mandates, and issues before and after the Seminar-Workshop. Correlation of the participants' awareness level along variables of sex, age, and subject departmental affiliation was considered. It also sought the perceived level of effectiveness of the cooperative and collaborative learning approaches along all training aspects. The study involved 52 employees or 57% of the actual GAD seminar participants on the post-assessment. It solely relied on data gathered through survey questionnaires treated by Mean and Pearson Product Moment Correlation for interpretation. The school employees were aware of GAD information 'to some extent' with responses mean of 2.82 before the seminar was conducted, and raised to the moderate level with 4.01 responses mean after the event facilitated through Cooperative and Collaborative Learning Approaches. No significant relationship was found between awareness level with any of the variables reflecting r values lesser than 1.00, specifically .049; .161; and .022 along sex, age, and subject departmental affiliation respectively. Participants also perceived the extreme effectiveness of the strategy as reflected by a weighted mean of 4.26 on the training aspects- conduct of Spiritual Retreat and Renewal of Commitment; effecting Enjoyment of Leisure Time and Enhancement of Psycho-Social Skills; Coordination and Organization of Training Committees; and on delivering Gender and Development topics. The study recommends the cooperative and collaborative learning approaches to other institutions as a training methodology.

### 44348

#### **The Roles, Responsibilities, and Significance of Mentor Leaders: Supporting the Professional Development of Teacher Candidates**

Lyndall Muschell, Georgia College & State University, United States

Nancy Mizelle, Georgia College & State University, United States

Initial Teacher Education programs within our College of Education are composed of three critical, interconnecting components: Mentor Leaders, cohorts, and extensive field experiences. The model provides a two-year scaffolded program. This presentation focuses on the roles, responsibilities, and significance of Mentor Leaders. Mentor Leaders are College of Education faculty who are assigned to incoming cohorts and, in a looping fashion, remain with cohorts through program completion. Mentor Leaders influence the professional development of candidates in multiple ways, serving as advisor, course instructor, and field supervisor. However, the significance of the role is found in the more non-traditional responsibilities that Mentor Leaders assume. Through the process of looping with a cohort over the course of two years, Mentor Leaders develop unique relationships. They come to understand the strengths and areas for improvement of individual candidates. They capitalize on this knowledge as they work to provide learning opportunities which encourage candidate ownership of learning, responsibility in decision making, accountability, leadership, and problem solving. They are role models through their practice and professional development. Indeed, Mentor Leaders play significant roles in the development of candidates. Where, as Mentor Leaders, we have lived the experience and understand the breadth and depth of these relationships and their impact, the challenge has been quantifying and qualifying this particular component of the program model. Therefore, a group has convened to conduct a comprehensive empirical study of the model including Mentor Leaders' impact on candidate development. We invite feedback and seek dialogue that will inform our continued work.

## Friday Session II: 11:15-12:45

Room: *To be Announced in Final Schedule*

Session Topic: Design, Implementation & Assessment of Innovative Technologies in Education

Session Chair: *To be Announced in Final Schedule*

### 44993

#### **Geographic Independence Through Blended Synchronous Instruction: A Pilot Effort in Secondary Teacher Preparation**

Ariana Eichelberger, University of Hawaii at Manoa, United States

Paul McKimmy, University of Hawaii at Manoa, United States

The University of Hawaii at Manoa recently implemented a Here or There (HOT) instructional approach, blending online and face-to-face students in a newly redesigned secondary teacher preparation program. The redesigned program employs an interdisciplinary teaching approach and weaves standards of social justice throughout its learning experiences and assessments. HOT instruction is a blended synchronous approach that enables on-campus students ('here') and those in distant locations ('there') to participate simultaneously in real time class activities. Using this approach, students located throughout the Hawaiian islands were accommodated in a single course. Via a survey, students and faculty were asked to share their experiences with the format, their connectedness to their f2f and online colleagues, and how the format influenced their experience in the program. A minority of respondents (6%) reported technology challenges in the blended format, while 24% did not feel the blended format was challenging at all. Students clearly felt more connected to classmates who attended in the same modality: online students expressing more connectedness with other online students, and face-to-face students expressing more connectedness with others attending in the physical classroom. Additional findings from the survey, lessons learned from the approach and practical implications for future implementations will be provided and discussed with attendees.

### 45214

#### **Superstars and Tutors: Internet Effects on Education**

Sterling Higa, University of Hawaii – Manoa, United States

The internet is one of the most disruptive technologies of the last century. While internet access increases, data storage and bandwidth costs decrease. Thus, it is now possible to store and transmit high quality video on-demand. Soon, as virtual reality technology is refined, it may even be possible to design and enter fully immersive environments. These technological developments have only been partially exploited by educators. This presentation focuses on the economic landscape for teachers in this new technological world. I argue that two types of teaching will become more important in this new landscape: (1) the online superstar who is able to reach millions with low-cost or free high-quality content (e.g., Jordan Peterson, Michael Sandel) and (2) the local or online tutor who provides highly individualized service. I consider the implications of this dichotomy, especially for young teachers.

### 44741

#### **The Effect of Instructor Intervention on Usage of Mobile Devices for Informal Language Learning**

Daniel James Mills, Ritsumeikan University, Japan

Autonomy and self-initiation are essential to informal language learning. However, previous research has shown that instructors can have an influence on students' propensity to engage in both self-directed and



incidental language learning. In order to uncover best practices in regards to the promotion of informal mobile-assisted language learning (MALL) in the Japanese university context, the researcher designed an 8-week classroom intervention. This action research took place in a required English-language course in the Economics faculty of a major Japanese university. Prior to the intervention, the researcher administered an established survey instrument regarding informal MALL, which was modified and translated into Japanese with the permission of the authors. Over the course of eight class sessions, the researcher introduced four new resources that could be used for informal MALL. In addition, students completed four reflective writing assignments regarding their usage of these resources. The informal MALL survey instrument was administered again at the end of the eight week period in order to examine any changes that might have occurred due to the intervention. The results of paired sample t-tests indicated no significant difference in pre and post perceptions towards or usage of mobile devices for informal language learning. However, the qualitative data gathered provided valuable information that can be used to improve future interventions and obtain a favorable result. This presentation will be of interest to educators and administrators who hope to facilitate autonomous learning with technology among students at their educational institutions.

## Friday Session II: 11:15-12:45

Room: *To be Announced in Final Schedule*

Session Topic: Learning Experiences, Student Learning & Learner Diversity

Session Chair: *To be Announced in Final Schedule*

**43401**

### **Interdependence of Institutional Factors and Roles of Caregivers on Early Childhood Education in Oyo State, Nigeria**

Abolanle Olukemi Lasode, Federal University of Agriculture, Nigeria

Olufunmilayo Rose Akanji, Federal University of Agriculture, Nigeria

Olatunbosun Jonathan Soetan, Federal University of Agriculture, Nigeria

It is an undeniable fact that early childhood education (ECE) is the bedrock upon which other levels of education are anchored. This research examined the interdependence of institutional factors and roles of caregivers on ECE in Oyo State, Nigeria. The study utilized descriptive survey design with 200 caregivers which were randomly selected from eight early childhood educational centres in the State. Structured questionnaire, with Cronbach's reliability Alpha of 0.87, was used to elicit responses from respondents. Data were analyzed using percentages, mean and Pearson Product Moment Correlation. Five domains of institutional factors of ECE were used in the study. Finding showed that poor educational achievement by the pupils (mean=2.44) ranked highest among the learning environment factors affecting ECE. On the curriculum/syllabus factors, results indicated that lack of activity manual necessary to enrich curriculum themes (mean=2.46) ranked first. Result of infrastructural factors revealed that inadequate classrooms and halls to practice various educational activity (mean=2.48) ranked highest while on parental factors, lack of parental support in ECE (mean=2.47) ranked highest. Result revealed that, among the roles of caregivers in promoting ECE, teaching to promote and reinforce active learning (mean=4.04) ranked highest. Result showed that there is significant relationship ( $r=-0.959$ ) between the roles of caregivers and institutional factors affecting ECE. The study concluded that there is interdependence between roles of caregivers and institutional factors affecting ECE. It is therefore recommended that government at all levels, relevant stakeholders in ECE and policy makers should formulate policies and framework to promote and build ECE.

**43984**

### **Connecting and Reflecting on Workplace Visit Experiences**

Deryn Hardie Boys, Victoria University of Wellington, New Zealand

The English Language Training for Officials (ELTO) programme is a New Zealand government aid programme which provides a professionally-focused English language programme. The 5-month programme targets government officials from Cambodia, Indonesia, Laos PDR, Mongolia, Myanmar, Timor-Leste and Vietnam, in order to build capacity in the government sector in these countries. Part 1 of the programme is delivered by two regional tertiary providers, and Part 2 is delivered by Victoria University of Wellington. Each intake focuses on a particular theme, such as Education, Agriculture or Renewable Energy, selecting officials working in that particular sector of their government. This means that while the learners on the programme are all mid-career government officials working to help their countries develop, their learning backgrounds are diverse. One of the key learning experiences is the Part 2 workplace visit. Small groups of officials visit a New Zealand government office or organisation and meet experts who work in roles that are closely related to their own positions. They get an overview of what happens in the professional context and have the opportunity to ask questions and expand their professional knowledge. This presentation will discuss students' reflections about the workplace strand of the ELTO programme. It will also consider the value of ongoing connection within the alumni groups for further professional development.

**45061**

**Study Abroad Program: Case Study for Career Program**

Mayumi Hori, Chuo University, Japan

In this paper, I will introduce the educational overseas career program designed and executed by the author and validate the effectiveness for students. The program aims to cultivate general capabilities(cognitive, theoretical, social and cultural skills as well as broad knowledge and experience) through students own proactive quest with active learning. The program entails discovery learning, problem-solving learning, experience learning, and explorative learning. It offers two credits and entails completing pre-and post-guidance in Japan, overseas training at local companies, and compiling a final report. The program started in 2008, and so far has conducted overseas programs in California, US (2008,2009), Paris, France (2010), San Francisco/ Silicon Valley, California, US (2011), and New York City, US (2012-2016), with a total of 69 participating students. It is essential to provide students with career education that enhances their qualifications for becoming highly capable professionals, and motivates them to enter the workforce. The attrition rate among college graduates in Japan during their first three years of employment is increasing. The significant gap between the readiness of college students and the qualities required for entering the workforce and sustaining employment is contributing to a national problem characterized by a growing number of students incapable of integrating into society.

## Friday Session II: 11:15-12:45

Room: *To be Announced in Final Schedule*

Session Topic: Educational Policy, Leadership, Management & Administration

Session Chair: *To be Announced in Final Schedule*

### **44401**

#### **Bring Your Own Device Policy Guidance in New Faculty Implementation**

Anthony Brian Gallagher, Meijo University, Japan

This presentation is a follow-up to initial findings of a Bring-Your-Own-Device (BYOD) recommendation – over a policy – in a new faculty implementation that will show the difficulties and shortcomings of providing support to the new faculty of students within a newly established campus. The presenter will show student support success rates and unexpected capacity shortage issues, as well as some ideas on how to manage the limitations. Lending data from library services on mobile devices will show the need for a full BYOD policy implementation. The presenter will also share ideas on how to improve the user experience and increase student satisfaction. This study is in the third year of a three year study looking at technology implementation in a new university campus of a well established private university in Japan. The research aims to improve the user (student) experience and to investigate the procurement processes in place in order to improve and quality assure the whole student experience.

### **44454**

#### **Challenges and Opportunities Experienced by Subject Supervisors: Towards Improved Subject Supervision**

Maria Lilet Medina, Miriam College, The Philippines

Subject Supervisors (sometimes called Subject Coordinators or Subject Area Supervisors) hold an important role in an academic institution. As middle managers, they have to bridge the gap between administrators, teachers, and students. They are involved in vital academic processes such as curriculum development, teacher training, as well as other administrative duties. The main purpose of this study was to determine the challenges and opportunities experienced by Subject Supervisors that may have an impact on their effectiveness. The research was also conducted to find ways on how subject supervision can be improved. Through semi-structured interviews and content analysis of gathered data, results suggest that Subject Supervisors experience a variety of opportunities and challenges. Among the opportunities Subject Supervisors enjoy are 1) professional growth, 2) chance to develop subject area offerings, 3) flexibility in schedule, and 4) superiority. These bring about positive feelings and attitude about the position. Results of the study also showed numerous challenges and disadvantages that Subject Supervisors face, including 1) heavy workload, 2) budget availability, 3) mismatch of area expertise, and 4) problems in vertical communication. These bring about negative feelings and affect the self-esteem of Subject Supervisors. This paper implores academic institutions to take into consideration these opportunities and challenges to be able to help Subject Supervisors perform their tasks better, which can then lead to improved subject supervision.

### **42655**

#### **Mentorship, Global Readiness, and Student Success at South Carolina State University: Stories of the New Student Mentor**

Delindus Brown, South Carolina State University, United States

Tenured associate professors and professors can help create a new kind of student leader or re-engineer the making of the New Student Mentor on the college campus. These professors will be able to help the

student create a plan of effective communication with students. In fact, with the use of effective interpersonal communication strategies and focused-groups, the tenured faculty member will be one of the sources to help advance student success and retention here at SC State. Research shows that achievement of rank and promotion are perceived as important qualities of credibility to students. The NSM will be able to identify and communicate effectively with other students on campus and community peers off campus. In addition, the NSM will be able to monitor the road travelled by other student-peers in order to find new avenues to offer tools for attaining success as well as for helping to eliminate any physical and mental barriers that lead toward goal accomplishment and success at South Carolina State University. Some characteristics/duties of the NSM include working across departments and programs to achieve objectives of the attainment of success through graduation; creating, along with tenured faculty member, ways to measure success of those students in research cohort; advocating by example the importance of beginning and building an effective resume for immediate and future success of the individual student; and helping, other students consider the importance of publishing as an avenue to academic success.

## Friday Session II: 11:15-12:45

Room: *To be Announced in Final Schedule*

Session Topic: Consumption, Production & Waste

Session Chair: *To be Announced in Final Schedule*

### 44361

#### **Mass Balance of Microplastics in the River Network of Taipei Basin: A Case Study in Taipei (Taiwan)**

Graham Wong, National Taiwan University, Taiwan

Alexander Kunz, National Taiwan University, Taiwan

Ludvig Lowemark, National Taiwan University, Taiwan

The presence of microplastics has been a growing concern in recent years. In spite of the increasing interest in microplastics, the majority of studies have focused on the existence of microplastics in marine environments, while little emphasis placed on freshwater systems. With an estimate of over 1.2 million tonnes of plastic entering the oceans annually via rivers, Asian countries are listed as the main producers of mismanaged plastic wastes. The city of Taipei, with its 55% recycling rate and plastic reforms is estimated to discharge 2.54 kilotonnes of plastic per year into the Taiwan Strait. This research presents a case study of establishing a mass balance for microplastics (in the size range of 0.3 - 5 mm) flowing through the rivers of the Taipei Basin into the Taiwan Strait. The Taipei Basin is comprised of three large tributaries: Dahan, Xindian, and Keelung River, which merge into Tamsui River. Using a manta trawl, sampling was performed at the mouth of each tributary. Preliminary results show microplastics in the Xindian River (in average 39.8 particles per m<sup>3</sup>) and Keelung River (in average 156.9 particles per m<sup>3</sup>). Microplastics were found in a wide range of shapes; majority being fragment, film, and foam. Currently the microplastics flux before and after periods of strong precipitation is studied. With the data collected, one of the aims of this study is to help the city of Taipei target areas of possible sources of microplastics.

### 44456

#### **Environmental Assessment of Innovative Paper Recycling Technology Using Product Life Cycle Perspectives**

Norihiro Itsubo, Tokyo City University, Japan

Yuya Ono, Tokyo City University, Japan

Takehiko Okamura, Seiko Epson Corporation, Japan

Koichiro Yokoyama, Seiko Epson Corporation, Japan

Masaaki Hayashi, Seiko Epson Corporation, Japan

A new 'dry paper recycling technology' that creates new paper from used paper at office have been developed. The developed technologies consist three technologies ; 'defibration technology" for decomposing used paper into pulp fiber, 'sheet forming technology' for forming fibers again into a uniform sheet, 'pressing and binding technology' for increasing fiber density and bonding pulp fibers each other to create new papers. By doing these in dry processes, a small sized and low power consumption paper making machine (named PaperLab) to be able to create on-demand paper recycling system have been realized. This recycled paper can be used to print as a PPC paper and so on. This study aimed at evaluation of environmental aspects of this technology using the framework of product life cycle perspectives. The scope of our assessment includes raw material extraction, transportation, manufacturing, usage and recycling. The assessed inventory items are carbon dioxide and water use. According to the tentative result, this new system is revealed to contribute the reduction of 90 percentages of water consumption, because it enables us to avoid the water usage in making pulp for recycling paper.



**43403**

**Densification of Tropical Wood Residues for the Development of Solid Fuels**

Abdulkarim Baba Rabi, University of Ilorin, Nigeria

Olumuyiwa Aajni Lasode, University of Ilorin, Nigeria

Olalekan Tajudeen Popoola, University of Ilorin, Nigeria

O. P. Babatunde, University of Ilorin, Nigeria

Hakeem A. Ajimotokan, University of Ilorin, Nigeria

Densification of materials through pelletisation, briquetting and cubing to form strong and durable bonding products with greater structural homogeneity, better handling and durability properties has attracted the attention of researchers in recent past. The present work focused on conversion of residues of some tropical wood species to energy fuel through pelletisation. The woody-biomass species studied were Apa (*Azizkia Africana*, AA), Iya (*Daniella oliveri*, DO) and Arira (*Detarium microcarpum*, DM) which were sourced in Nigeria. The samples were prepared in different sizes of less than 0.50 mm, 0.50 – 1.00 mm and 1.00 - 1.70 mm after drying in a laboratory environment. The different particle sizes were forced into a prepared die using gelatinised starch as binder. Higher heating value (HHV), impact resistance index (IRI) and water resistance test were obtained for all samples with and without binder. The average HHV of pellets produced from DM was found to be 26.53 MJ/kg without binder, which is the highest among the three samples, showing that DM may have higher lignin content. However, pellet samples AA produced with binder has average HHV of 25.41 MJ/kg which is highest among the three samples. Result showed that IRI increases as particle size decreases for pellets produced without binder, while for pellet with binder, IRI increases as the particle size increases. Result of water resistance test showed that the disintegration time increases as particle size decreases. The basic physical properties that enhance handling and transportation operations of wood pellets have been achieved when compared with standard.

## Friday Session II: 11:15-12:45

Room: *To be Announced in Final Schedule*

Session Topic: Interdisciplinary, Multidisciplinary & Transdisciplinary Education

Session Chair: *To be Announced in Final Schedule*

**44622**

### **Creation of Enabling Educational Environment for Quality Education Through Single Window**

**System** Administered Teaching-Learning Process: The Indian Experience

Jamini Kant Mahto, Jamini Kant Satellite Educational Group, India

Madan Chand Sarkar, Jamini Kant Satellite Educational Group, India

The present paper aims at highlighting single window system of education as a model/holistic concept of imparting formal as well as vocational education to children of marginalized communities of rural India so that after passing out they become self-reliant, disciplined and persons with high ethical/moral values. The paper has been developed by documenting the process of single window system of education adopted by 'Jamini Kant Satellite Educational Group' through which the rural children belonging to marginalized communities are being imparted education from lower to higher levels within a campus located at a remote village in East Singhbhum district of Jharkhand (India). Relevant data/information used in this paper have been collected from records available in the office of the said campus as well as through interviews with different stakeholders like students, teachers, parents/guardians, etc. The paper found that children admitted in the campus at lower classes are being provided formal education up to eighth standard. Thereafter, along with formal education, they are streamed on various vocational courses like Education, Agriculture/Horticulture, etc, until they complete their higher education. Other than getting equipped with educational degrees and livelihood skills, the students of that campus are found confident/optimist in recognizing their personal and social needs along with acquiring strong ethical/moral and disciplined characters, which are essential for nation building. The paper recommends for governments' interventions towards replicating this model concept not only for imparting quality education to rural children but also for resolving the problem of unemployment that causes social turmoil/chaos in rural India.

**43321**

### **Usefulness of Bilingualism and Literacy**

Ananda Majumdar, University of Alberta, Canada

Bilingualism in the United States is an important topic because of extensive immigration from around the world. Children from immigrant families, especially from Mexico, are admitting to early learning school setting every year and the percentage of the immigrant children whose first language is not English is increasing yearly. As a result because of their initial development in early education US education board has taken various initiatives such as bilingual educational curriculum in early learning centre, learning of bilingualism, extensive literature education through skill-based learning and knowledge-based learning, content learning, language learning, teacher's professional development, extensive diverse environmental training, children's fair and extensive careful assessment etc. I am an Education student at the University of Alberta, and a Professional Child Development Educator student at the Harvard University Graduate School of Education, taking online professional development courses for my educator training and development and for further studies and opportunities through the Harvard University, Bilingualism is one of the professional education course that I took in the past from Harvard Graduate School of Education and I would like to spread world-wide about its usefulness, about Harvard curriculum of child development, so that citizen of the world can aware about, this is why I have written this article.

**45075**

**Pimcihisowin, Means "To Create a Life of Independence" in Nehiyawewin (Indigenous Cree Language)**

Amber Dion, MacEwan University, Canada

Terri Suntjens, MacEwan University, Canada

Pimcihisowin, means 'to create a life of independence' in nehiyawewin (Indigenous Cree language). As Indigenous women working within an academic institution, we (the presenters) will address and explore how we create space for Indigenous knowledge both in the classroom and university-wide. Interdisciplinary dialogues, policy, program and course development will be discussed in this lecture. This goal of this lecture is to demonstrate how institutional change has happened through Indigenous resistance and the resurgence of Indigenous knowledge. This presentation speaks to decolonizing strategies and ensuring respectful practice in culturally appropriate programming and development. The presenters will address the challenges experienced while navigating academic structures and how to mitigate these challenges.

## Friday Session II: 11:15-12:15

Room: *To be Announced in Final Schedule*

Workshop Presentation

**44269**

### **The Teacher Leadership Journey**

Gwendolyn Perkins, Richmond City Public Schools, United States

Schools require a dual leadership paradigm for administrators and teachers to meet comprehensive and intense responsibilities in the field of education. School divisions face pressure to sustain a competent and effective professional workforce. There is a need to promote school and division leadership opportunities for teachers and provide support. The implementation of leadership initiatives specifically designed for teachers could guide their acquisition of essential knowledge and professional development capacity. Successful teacher leaders demonstrate an understanding of teaching and learning pedagogy along with expectations in conjunction with ramifications in this new age of accountability. The involvement of the principal signifies the dedication to a teacher leader's triumph. The purpose of this interactive session is to explore traits, experiences, training, and roles of teacher leaders. This presentation will allow participants to share professional reflections, generate leadership path notions and learn useful strategies to inspire future teacher leaders.

## Friday Session III: 13:45-15:15

Room: *To be Announced in Final Schedule*

Session Topic: Learning Experiences, Student Learning & Learner Diversity

Session Chair: *To be Announced in Final Schedule*

**42697**

### **The Importance of Standardized and Structured Demonstration in Clinical Teaching, Particularly, in Highly Diverse Tertiary Contexts**

Gloria Ramdeen-Mootoo, The University of The West Indies, Trinidad and Tobago

Many nursing students and practising nurses have differing views and practice different methods of acute wound dressings thereby confirming on a national scale, a lack of standardisation in the field. This study thus aimed to determine whether as a strategic part of the clinical teaching method, structured demonstration is most effective in educating nursing students on wound dressing techniques. Nurses from the University of the West Indies' School of Nursing (UWISoN) were interviewed to determine their current and consistent practices and applications in the field. It was found that multiple variations exist among these nursing practitioners, all of whom were educated at the same tertiary institution. The implication that there is an inherent need for curriculum re-design and standardisation was apparent in this qualitative, small scale study and was gleaned from the narrations of research participants which explicitly outlined and explained their diverse learning experiences and learner diversities.

**44883**

### **Mathematics and Racial Equity: Self-Selection and Appropriate Placement**

Alana Tholen, University of Iowa, United States

This paper explores the relationship between appropriate class placement and racial equity under a self-selection program model at an urban middle school in the Midwest. We define self-selection as students' ability to choose their level of courses regardless of test scores and other academic criteria. Within this school, students have the ability to specifically choose their level of Language Arts (advanced or standard) and their level of mathematics (double-advanced, advanced, or standard). Under this model, students do not need to meet additional criteria for selecting an advanced class, as this model's goal is to promote equal opportunities for students that may not have been tracked into advanced classes in their earlier academic careers. Additionally, we recognize that parental influences may play a role students' course selection; however, under this model, the course for which a student registers for is up to the student. Through this study, we investigate how the self-selection program model affects the demographics of leveled classes, and we specifically study the changes in racial demographics of advanced classes. We also assess students' accuracy in choosing classes that are appropriate for them under this model by analyzing students' class performance, standardized test scores, and nationally normed test scores. Through our study, we unfortunately found no indication that self-selection promotes racial equity, nor do we believe that students are able to make appropriate course selections under this model.

**45152**

### **Fostering Student Growth Through Applied Research in Sustainable Buildings**

Wendy Meguro, University of Hawaii, United States

This presentation shares a pedagogical approach to foster university-level architecture students conducting extra-curricular applied research. Based on two decades of experience, this presentation reflects upon how educators can shape research projects to promote student growth while addressing environmental needs of

the 21st century. The Environmental Research and Design Laboratory (ERDL) at the University of Hawaii's School of Architecture has employed over seventy students on projects that afford them a deeper understanding of professional practice and also inform their academic studies. When higher education professors craft a research project, defining the project's criteria and objectives can be a daunting task. In this presentation, we will share the key ingredients to the creating meaningful research projects in this research laboratory, with examples of actual student work and learning outcomes. Given our established track record, we will share lessons learned on how the Environmental Research and Design Laboratory has:

- Fostered students' technical skills in measuring energy use and thermal comfort in existing buildings and running computational building performance simulations;
- Received positive feedback from graduates' employers;
- Addressed the pressing need to create resource-efficient, comfortable buildings, including quantified reductions in greenhouse gas emissions;
- Created opportunities for students to reinforce concepts from the classroom with 'real world' projects and clients;
- Addressed students' need to work in a position related to their studies with an accommodating schedule;
- Assisted under-served communities and provided quantified environmental benefit; and
- nurtured students' curiosity, independence, and confidence.



## Friday Session III: 13:45-15:15

Room: *To be Announced in Final Schedule*

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

Session Chair: *To be Announced in Final Schedule*

**44374**

### **Transient Modernity and Obstinate Conformity in Japan: Review of 2020 English Education Reform Plan**

Jaya Luxmi Samboo, Reitaku University, Japan

The changing geopolitical, socio-economic and academic panorama in Japan is anchored in the several treaties the country concluded in the late 19th century when it opened its doors to the West. The eras that treaded the Japanese soil can be characterised by some level of acknowledgement – but highly debatable commitment – that Japanese citizens needed to develop more language competence to understand and be understood by the broader Western world. However, the endeavours of the different governments in that direction have proven futile. The reality is that the skills required to embark on basic conversations in English are seriously lacking among Japanese people even after six years of English study in high school. Communicative and intercultural competence so primordially emphasised in this globalised world, has long been either misunderstood or underestimated in the Japanese curriculum. This has prompted the government to implement an educational reform in 2020 which, if instrumented appropriately, would be the most pivotal reform ever proposed in Japan - one that could perceptively cause some seismic disturbances in the social, economic and academic spheres. This paper will discuss the current situation of the language education in Japan while reviewing the historical changes over the different eras. The challenges that Japan will face in the advent of globalisation by embarking on this pressing reform will also be critically debated. The extent to which the stakeholders involved in the process will experience the change will be explored and recommendations will be made on ways to successfully embrace the reform.

**44509**

### **We are People First and Americans Second: Students Reflect on Their Study Abroad Experience to Tanzania**

Nicole DeClouette, Georgia College & State University, United States

Sheena Kopecky, Georgia College & State University, United States

Tanzania is a beautifully-woven tapestry of 120 tribes, each with its own history, language, and traditions. With such differences throughout Tanzania, one may be tempted to think that relationships among Tanzanians might be strained. To the contrary, Tanzania is a peaceful country. As the former Vice Chancellor of Sebastian Kolowa Memorial University said, 'We are Tanzanians 1st, tribes 2nd.' This phrase stuck with six students from Georgia College as they travelled throughout Tanzania to study the intersection of disability and culture. Disability in Tanzania is complicated, especially among the Maasai tribe. Historically, the Maasai left babies born with disabilities in the bush to die. Part of the reason for that is because they are pastoralist and semi-nomadic, requiring extensive physical mobility as they moved to find food and water for their cows and goats. Today, the Tanzania government has outlawed this practice, though people we meet still tell us that children with disabilities are often left in cages or tied up at home. Dr. DeClouette will present a qualitative analysis of students' post-study abroad reflections. In addition to learning about the cultural construction of disability, the experience abroad caused students to reflect on what it means to be American and what it means to be human. Extending the phrase they heard by the

former Vice Chancellor, they reached the conclusion, 'We are People 1st, Americans 2nd.' Students will add context to the emergent themes with examples from their experience abroad.

**45126**

**Does English Work as the Universal Language? – Judging From the Current Trend of World Englishes**

Masako Mouri, Toyohashi University of Technology, Japan

Japan has faced numbers of foreign national suspects, defendants and/or witnesses (criminals/civil cases) along with the globalization. Not only major-spoken language speakers but also minor-spoken language speakers have increased in Japan. When the suspects, defendants and/or witnesses are those language speakers, it is quite difficult or impossible to find legal interpreters in Japan. On those cases, it often happens that the legal institutes allocate English speaking interpreters for them, since their second or third languages may be English. It is a tendency that they may think English is 'just' English at legal institutions and don't pay any attention to the variation or difference of discourses or utterance, even though speakers (suspects, defendants and/or witnesses) come from many different countries. English, however, is not the same in the world, and some understand that there are 'World Englishes' and they are different respectively. English speaking interpreters in any legal situations try to convey and translate message from the original 'English', but the utterance or discourse are different depending on speakers or their native countries and/or educational background. Even though those circumstances, no attention or little attention has been paid to languages or interpreters from legal participants, i.e. judges, prosecutors or attorneys, as they think English is 'just' English and don't think there are differences. This paper explains the current situation in Japan, in particular, conditions at legal institutions, and focuses on challenging issues that legal interpreters have to face as well as possible solutions.

### Friday Session III: 13:45-15:15

Room: *To be Announced in Final Schedule*

Session Topic: Design, Implementation & Assessment of Innovative Technologies in Education

Session Chair: *To be Announced in Final Schedule*

#### **45041**

##### **The Impact of Culture on the Usage of SNS for English-Language Learning in Japan**

Megumi Kohyama, Doshisha University, Japan

Like many technologically proficient and wealthy countries, the usage of social-networking sites (SNS) is becoming increasingly popular in Japan. This is especially true among young people who use these services not only for communication but also entertainment through the numerous features they provide like photo editing and adding character figures to video. While Japanese people enjoy using SNS, some individuals struggle to share personal information due to cultural reasons. For example, many Japanese hesitate to share pictures of trips abroad or even posts written in English as it can be seen as flaunting. This can pose a problem for Japanese students of English who want to utilize SNS for informal learning. To explore this phenomenon, the researcher examined the effect of Japanese culture on SNS usage and its impact on informal English-language study. Utilizing a mixed-methods approach, the researcher collected data at three Japanese universities by means of a survey instrument and group interviews. Four dimensions of culture and SNS usage were explored: (1) self-confidence and flaunting, (2) cultural contradictions and tensions, (3) perceived barriers to usage, and (4) perceived advantages of the platform for language learning. The goal of this research was to identify various aspects of cultural tension in SNS usage and utilize this information to reduce barriers to adoption of the medium for English-language study. While the focus of this research was on the Japanese context, this presentation will be of interest to anyone interested in utilizing SNS for language learning in a multi-cultural context.

#### **42042**

##### **I "Like" It: How to Increase Facebook Group Enrollment and Engagement for University Programs**

Garrett Fisher, Western Carolina University, United States

The rise in social media use over the years brought Facebook to universities across the US, so departments and programs are currently experimenting with using it for academic and communication purposes and they are finding it to be beneficial (Wang, Woo, Quek, Yang, and Liu, 2013; Clements, 2015; Guo, Shen, and Li, 2018; Heiberger and Harper, 2008). This research presents a case study of how to improve a pre-existing university departmental Facebook group and suggests actions based on a successful implementation strategy in the Department of World Languages at Western Carolina University in North Carolina. Other studies on Facebook groups analyze the creation and use of a Facebook group, making this study unique because the original Facebook group was created for the department in 2012, yet five years later, there were only 64 members in the group, demonstrating that the group was not optimized to its full potential. This study found that fourteen specific actions can increase the number of members within the group while encouraging engagement. The strategic actions in this study tripled the number of Facebook group members over a ten-month period and promoted intercultural diversity and communication.

#### **44462**

##### **Exploring Perceptions of Enterprise Social Networking of a Doctoral Community at a B-School in India**

Anindita Paul, IIMK, India

Enterprise Social Networking use in academic institutions can help in Knowledge Management. Academic institutions are constantly creating and transferring knowledge. The doctoral scholar communities especially can find good use of ESN that would help them to retrieve information from existing knowledge base as well as provide support from the community in various ways. It also enables them to network within their communities that can help them to fulfill their information needs that they have during their time in the doctoral program. Such information provides value when it is used to create knowledge. However, ESN adoption and use comes with hindrances when individuals do not adopt to it; communities do not interact on it; as well as the infrastructural and technological support is not adequate for a satisfactory usage. The study explores the case of a doctoral scholar community in a B-School. Three focus group interviews with the scholars from different stages in the program were conducted. Individual, community and infrastructural/technological factors were explored that affect the preparedness to adopt and use an ESN in the B-School by the doctoral scholars. Findings indicate that individual characteristics of contribution may be hindered out of lack of relatedness to larger communities and confusion regarding contribution. Community dynamics in the physical environment can also hinder the use of ESN. However proper measures to address the personal and community characteristic along with infrastructural and organizational support can create a conducive online knowledge management system with ESN. The study contributes to an understanding of factors that can increase adoption and ease of use of ESNs for scholars in an academic setting.

## Friday Session III: 13:45-15:15

Room: *To be Announced in Final Schedule*

Session Topic: Teaching Experiences, Pedagogy, Practice & Praxis

Session Chair: *To be Announced in Final Schedule*

### **43739**

#### **Action Research Writing Ability Among Secondary School Teachers**

Gemmaline Bumanglag, Tabuk City National High School, The Philippines

This study focused on the action research writing ability of secondary school teachers in Tabuk City Division, Philippines, as affected by their socio-demographic profile. There were 15 secondary schools in the division; however, only 7 schools were participating in research. This was planned as a basis in giving technical assistance to improve teachers' action research writing ability. The study involved 41 chosen teachers who have conducted action researches. It was a quantitative study and employed descriptive research design. The data on respondents' socio-demographic profile was presented in percentage. Furthermore, Chi-square test was used to determine the association of the action research writing ability of the teachers with their socio-demographic profile. Results showed that most of the respondents were in the field of English, followed by Science, Math and Filipino. Majority were 36-50 (70.70%) years old, female (78%), master's degree holders (75.6%), in the service for ten years and below (53.7%), with three or more trainings on research writing (65.9%), and with one action research conducted. Almost half (46.3%) hold Teacher III positions and the rest hold either a Master Teacher or Teacher II position. Results further showed that the overall action research writing ability of the respondents is at moderate level. Furthermore, Chi-square test revealed that the action research writing ability of the teachers does not have significant association with their educational attainment, teaching position, and length of service but have significant association with their field of specialization, age, gender, number of trainings attended and number of action research conducted.

### **44543**

#### **Improving Students' Cognitive Skills and Leadership Potential: Critical Insights into the Food and Textiles Studies in Mauritius**

Homeswaree Savitra Samboo, Mahatma Gandhi Institute, Mauritius

The recent significant changes brought about in the educational system in the small island of Mauritius have seen the inclusion of various vocational subjects in the National Curriculum Framework for Grades 7 to 9 in 2016. This was quite a revolution for a country whose educational system has been severely criticised in the past because of its excessive and exclusive emphasis on purely academic skills. But the change is brought about by globalisation; savvy high school graduates are needed to maintain country's position as leading textile player in Africa and beyond in an increasingly competitive global market. The Curriculum Project Director and Director of the Mauritius Institute of Education states that, for Design and technology and Food and Textile Studies, 'the content and pedagogical approach, as well as the activities, have been crafted to allow for an incremental and continuous improvement of the learners' cognitive skills' (Varma, 2017: pp3). This presentation will offer critical insights into the Food and Textile Studies in the National Curriculum framework. It will discuss the latter's potential in developing in secondary students entrepreneurial traits, leadership skills and creativity. The presentation will also review the strategies currently employed by local educators in vocational subjects. It thus aims at making a much-needed contribution to the field of vocational education in Mauritius - a field that is presently cruelly recognisable by paucity in the literature.

43538

**From Interdependence to Independence: Using Disagreement-Based Dialogic Writing to Improve Individual Argumentative Writing**

N. Leigh Boyd, Columbia University, United States

Dialogic collaboration has been shown to boost critical thinking, argumentation, and metacognitive skills. Many educators see agreement as a core aim of collaboration, but disagreement-based dialogue can have a profound impact on cognition. The present study examined the ways disagreement-based dialogic writing activities scaffold the development of argumentative writing skills and metacognitive discussion in adolescents. Over the course of one school year, a total of 55 students in two low-performing 7th grade classes participated in a twice-weekly dialogic argument curriculum. In a quasi-experimental design, one class was randomly chosen to collaborate with a classmate who held the opposing view on a topic and produce a jointly written essay while the comparison group wrote an essay individually. Compared to students who only wrote individually, collaborative writers performed better on subsequent individual essays, anticipating and countering the arguments of the other side better, repeating ideas less often and using more unique idea units in their essays. To explore the collaborative processes underlying the differences between groups, digital voice recordings from the collaborative writing activity were examined. The recordings show an increase over the year in metacognitive dialogue pertaining to their task. The emergence of metacognitive dialogue over time supports the view that collaborative writing aids in the development of an argumentative mindset that transforms inter-individual dialogue into intra-individual reflection, helping students move from interdependence to independence.

### Friday Session III: 13:45-15:15

Room: *To be Announced in Final Schedule*

Session Topic: Educational Research, Development & Publishing

Session Chair: *To be Announced in Final Schedule*

**45213**

#### **Urbanization and Educational Inequality: A Case Study of Beijing**

Jianhui Zhang, University of Hawaii – Manoa, United States

The Chinese government has put tremendous effort into improving the national gross happiness ever since the establishment of the country. Urbanization, as argued by many scholars as the only method towards modernization (Qi, Gao, & Zhang, 2017), has brought great benefits not only to the nation but also to its people. Different policies were developed to meet the needs of the modern society. However, it is hard to make any policy perfect for the society due to the fact that different things emerge at all times. While enjoying the benefits of urbanization, there are still other areas and people who are suffering from the side-effects it has brought along with the positive outcomes. This article examines the urbanization of Beijing, the capital city of China, to find out the reasons that create educational inequality based on the theoretical frameworks of meritocracy and urbanization. The author argues that educational opportunity should not be limited to the household registration system. This article serves to broaden the dialogues on how we think about educational equality in the context of schools mentioned above.

**45136**

#### **The Awareness of Persuasive Techniques in Television Food Advertising Among Elementary School Students**

Kanae Suzuki, University of Tsukuba, Japan

The purpose of this study is to examine the awareness of persuasive techniques used in television food advertising among elementary school students. One hundred and seventy-seven students from the fifth and sixth grades were asked to write about what they were aware of four topics (information about the product, characters, visual and sound techniques) after watching a commercial for chocolate confectionery. Some students wrote about the persuasive techniques such as the taste and nutritional information as information about the product, the appearance of the well-known character and how she makes the product seem appealing, the written information, color and pace as visual techniques, and the laughter, voice, jingle and sounds made by eating the confectionery. However, the proportion of the students who were spontaneously aware of these techniques was not high. Based on the findings, some useful instruction methods should be discussed to promote the awareness of the persuasive techniques for a class.

**42695**

#### **Hawai'i K-12 Public School Teachers' Level of Computer Self-Efficacy and Their Acceptance of and Integration of Technology in the Classroom**

Devin Oshiro, Pearl Harbor Elementary, United States

This study sought to determine the relationship between K-12 Public School teachers' level of Computer Self-Efficacy (CSE) and their acceptance of and willingness to integrate technology in the classroom. CSE is defined as 'an individual's perception of efficacy in performing specific computer related tasks' (Karsten, 2012). CSE is indicative to the educational field due to its significant influence on an individual's ability to create lessons using technology. However, many teachers experience levels of computer anxiety when faced with opportunities to use technology and these negative attitudes impact a teacher's willingness to



integrate technology into their classrooms. The reality is that students living in today's society lead high-tech lives outside of school and low-tech lives inside school. This new 'digital divide' increasingly prevents students to be college/career ready. The challenge for our educational system is to use current technology and create relevant learning opportunities which mimic the technology that has become a ubiquitous way of life. Participants were emailed survey questions about CSE, Technology Acceptance and Technology Integration. Results indicated statistically significant findings related to the four research questions explored in this study. Overall, K-12 teachers CSE, technology acceptance and willingness to integrate technology was found to be statistically significant. Results of the study provide a baseline for administrators, but also require further studies that will add to the current body of knowledge concerning CSE and its relationship with technology acceptance and willingness to integrate technology in the classroom.

### Friday Session III: 13:45-15:15

Room: *To be Announced in Final Schedule*

Session Topic: Economic Growth, Employment and Work

Session Chair: *To be Announced in Final Schedule*

**45151**

#### **The Importance of Landmark: Focusing on Magnet Index**

Dongnyeon Ku, Kangwon National University, South Korea

Recent social networking services have played an important role in online communication. In particular, SNS and tourism meet, provide various information and play an important role in planning travel. In particular, it plays an important role in the tourism sector by introducing the landmark through sharing photos and others. In a modern sense, Landmark can be an abstract space with regional historical and conceptual meanings, or it can be a regional singularity that can only be seen in that area. In particular, if you look at tourism, the characteristic of Landmark is that it can be a place where tourists want to travel or leave memories. Magnetic motifs have a variety of functions, but among them, they are also used to collect memories of travel. Therefore, this study examines the importance of landmark in urban tourism using SNS. Through an Instagram hashtag analysis, the magnetic index was to be examined. Through this, it is judged that the nature of the Magnet index can be used in a successful local tourism strategy.

**45068**

#### **Strategic Marketing of Whale Watching Tours in Maui, Hawaii**

Rodolfo Delgado, The University of Kitakyushu, Canada

This paper discusses strategic marketing to attract international tourists to whale watching tours services in Maui, Hawaii. Business owners and personnel in the tourism industry aim to increase the value-added of the whale watching experience and the opportunity of attracting new and repeat customers. Meanwhile, a large number of operators constantly compete to attract customers to their tours. Therefore, marketing strategies based on the benefits of tours to the conservation of the mammals is key to attract whale watchers. Every year many tourists visit the Hawaiian Island of Maui with the goal of enjoying eco-tourism activities like whale watching, scuba diving, snorkeling and hiking among others. In a whale watching experience tour in Maui, Hawaii in December of 2017, a total of 26 tourists were interviewed. Respondents mentioned during the trip, experiencing whale watching for a second time; most of the Americans interviewed have experienced whale watching in diverse destinations. If customers' whale watching experience have been positive and the experience have been satisfactory, whale watchers will share their experience with their friends and family members. Therefore, whale watching touring experiences will be increased and repeat around the world and it will contribute to the conservation of the mammals and sustainable development of this tourism experience and tours. Key words: Marketing, Strategies, Whale, Watching, Tours, Competitiveness, Tourists.

**45241**

#### **Tourism Image Analysis of Rural Cities for Economic Sustainability: Applying Q Methodology**

Choi Kee-Jong, Festival Committee of Pocheon City, South Korea

Lee Kyung-Yur, Hanyang University, South Korea

Park Sang-Hyeon, Hanyang Cyber University, South Korea

As people move to big cities, rural cities are suffering from economic sustainability due to the depopulation drain. To overcome this, rural cities put much effort to develop the tourism industry. However, it is not easy to know which tourist image is effective. This study analyzes the tourism image of a rural city in South Korea

by applying q-methodology. As a result, three groups were discovered. Type 1, which is the image of newly constructed tourist facilities, mainly related to residents who are familiar with this area. Type 2 is the image of conventional tourism resources, mostly related to older tourists who live far from the area. Type 3 is the festival image held in the region and is associated with younger tourists. Of these, Type 3 is expected to contribute the most to increase the economic sustainability of the region. Therefore, by promoting festive images in this area, attracting tourists and increasing economic sustainability will be possible.

## Friday Session III: 13:45-15:15

Room: *To be Announced in Final Schedule*

Session Topic: Interdisciplinary: Climate Change & Natural Disasters

Session Chair: *To be Announced in Final Schedule*

### 44386

#### **Emergency Preparedness: Is Your Campus Ready?**

Hans Chun, Chaminade University, United States

Christine Denton, Chaminade University, United States

Colleges and universities, especially campuses with students living in on-campus housing, have faced dangerous and high-profile challenges in ensuring the safety of students, faculty, and staff from natural and human-caused events. Over the last 25 years, guidelines and best practices have developed and evolved in preparing for emergencies at institutions of higher education. It is assumed that colleges and universities developed their emergency plans and have them in place. However, the reality is that institutions of higher education vary in the depth and scope of their plans and its effectiveness as emergency preparedness is not directly regulated by governmental or accreditation organizations. Also, the level of institutional priority placed on planning effectively for emergencies and the resources made available to do so is a major factor on how advanced their plans are and the consistency in which they are updated. Chaminade University located in Honolulu provides a case study of how an institution of higher education made it an institutional priority to significantly update their emergency management plans over the span of one academic year to meet and in some areas exceed current guidelines and best practices. Chaminade also provides an example of how a university with a modest budget was able to integrate updated processes and methods to help with the security of classrooms, training for key university officials, overhauling the emergency communication notification systems, updating organizational structures with consideration for emergency operations, and disseminating updated plans and protocols campus-wide.

### 45105

#### **Families in Disaster: Understanding the Impact of Disaster and Relocation to Filipino Families' Dynamics and Their Resilience to Disasters**

Paoloregel Samonte, United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS), Japan

The onslaught of typhoon Ketsana in the Philippines in 2009, and the consequent relocation in its aftermath, has attracted a huge number of researchers within the disaster resilience discipline. But while literature regarding the phenomenon continues to flourish almost a decade after the typhoon hit the country, the focus of such scholarship is almost always on individual and community levels, leaving the family largely understudied. This study is an attempt to fill this gap within the literature. Every society, in its quest for sustainable growth, is dependent on its most basic social unit – the family. Guided by McCubbin's (1993) Family Stress Theory and Jones and Tanner's (2017) Subjective Resilience Theory, this qualitative research undertakes to look at the impacts of disaster and relocation to the Filipino family's internal dynamics, and consequently, their effects to the Filipino household's resilience to future disasters. Purposive theoretical sampling was applied in choosing the participants for the case study of Southville 7, a relocation site situated in Calauan, Laguna, Philippines. Data gathering methods such as in-depth interviews and field observations were employed in collecting stories from the 22 participating families. Research findings revealed that the impacts of post-disaster relocation to the families' dynamics could be grouped into seven general categories: on family composition and structure; members' roles; parenting style; parents' marital relationship; familial

relationship (closeness or conflict); family member's personalities; and death and disabilities. Meanwhile, the relocated families show strong resilience capacities in terms of social capital and learning.

**44938**

**Interdependence & Independence in Escaping From Post-Fire Debris Flow Disaster**

Ping Xu, University of Colorado, Boulder, United States

Climate challenges in recent decades led to natural hazards higher in frequency and in a variety of areas, particularly in mountains. Mountains' beauty attracts increasing populations to live and visit, thus, the damage of hazards are greater and more impactful. Recently, post-fire debris flows in the Western U.S.A. appear lacking efficient warning systems, resulting in people being caught off-guard. Facing natural disasters, people are vulnerable, due to the lack of scientific knowledge and common sense. Some believe that signaled evacuations are only the government's business, while others ignore evacuation orders altogether. In our society, every independency is relevant to interdependency. This research discusses independence and interdependence in self-escaping strategies with questions: what is post-fire debris/mudflow? When and where will it occur? And how to escape from it? The pre-conditions for post-fire debris/ mudflows occurring include rich debris resources; landforms trigger debris/mudflows; a wildfire strike has been experienced, accelerating and amplifying the debris/mudflow process; and constantly heavy rainfall is received. The high impact zones are where a sudden decline in slope appears in lower elevations; nearby rivers and lakes with flooding; and on hillsides with gullies pointing to or nearby the site. Identifying landform patterns of prone zones and high impact areas is crucial. A self-evaluation plan not only enhances people's independence for survival, but it also is helpful in creating cooperative community evacuations. Such knowledge would also benefit the community in establishing a warning system. The independence of individuals with self-survival knowledge and skills is contextualized in a safe community.

## Friday Session III: 13:45-15:15

Room: *To be Announced in Final Schedule*

Session Topic: Clean and Affordable Energy

Session Chair: *To be Announced in Final Schedule*

### 45122

#### **Concentrating Solar Power – Way to Increase Efficiency of Existing Fossil Fuel Power Plants**

Ravshanjon Khujanov, RheinMain University of Applied Sciences, Germany

Stefan Rusche, RheinMain University of Applied Sciences, Germany

Mansur Olimov, Institute for Material Sciences, SPA Physic Solar, Uzbekistan

Shavkat Nurmatov, Institute for Material Sciences, SPA Physic Solar, Uzbekistan

Thermal power plants are not considered to have elegant or visually stimulating designs by most and therefore the development on a site without previous construction is usually met with opposition from local communities. The impact of operation on the local and subsequent regional/global air quality is arguably the biggest detrimental effect that a thermal power plant has on the environment as it is specific to this type of structure. Previous thermodynamic studies on the integration of solar heat were performed in Rankine cycles. It is possible to achieve solar hybridization, savings of fuels (natural gas), reduction of CO<sub>2</sub> emission and increase performance within the observed steam flow diagram, which is similar to the fossil power plant portfolio in Uzbekistan. The solar thermal retrofitting of the existing power plant is based on parabolic trough technology. The hybrid mode of operation of the power plant ensures an availability of high performance. A quantitative assessment has been performed by using the annual outcome calculations of the certain year of operation. Then a comprehensive discussion of gained operating options led to identify a significant economic effect. Solar power plants are the opportunity for sunny regions to generate electricity by using renewable energy. When direct normal irradiation is reflected on the mirror and concentrated on the absorber of parabolic trough, large amount of heat can be gained for operation of a thermal power plant. Integration of thermal energy storage into the solar hybrid power plant can make CSP the most flexible renewable electricity technology.

### 43412

#### **Renewables Intermittency Versus Power (In)Flexibility: New Insights From Tail-Index Estimates**

Ronald Huisman, Erasmus University Rotterdam, Netherlands

Cristian Stet, Erasmus University Rotterdam, Netherlands

Evangelos Kyritsis, Norwegian School of Economics, Norway

Power prices are well known to have a fat-tailed probability distribution function. These fat tails represent the probability of sudden extreme high and low prices that occur as a result of abrupt changes in supply, partly due to intermittent renewable power generation, and/or in demand due to inelastic short-term demand and the absence of sufficient storage capacity. In addition to the consensus view in the literature, that intermittent renewable power supply has an effect on power prices and volatility, we show that wind and solar supply has an effect on the tail fatness of empirical power price distributions. The more wind and solar supply in an inflexible system, the fatter the lower tail of the electricity prices distribution function and the thinner the upper tail. From our empirical findings on the tail asymmetry in the distribution of electricity prices in the German market, we conclude that the power system has higher need for downward than for upward power system flexibility during times with high share of intermittent renewable energy in the power system and the opposite during times with low share of intermittent renewable energy in the power system. Additionally, the methodology used in this paper can be further applied to assessing the flexibility needs of various power systems, including those of islands. The proposed flexibility measure can be used by policy makers when

designing and/or updating power market regulations. This methodology can also be applied by managers in the process of risk assessment and energy real option pricing.

**44493**

**Seasonal Solar Thermal Energy Storage in a Region with Extended Freezing Period**

Getu Hailu, University of Alaska Anchorage, United States

Alaska is a region with a long period of winter and long summer days. The solar energy received during the summer needs to be stored in a thermal energy storage system for later used in winter. We present the comparison of the experimental results with numerical simulation. The numerical simulation was performed using TRNSYS. For the the given period, the results showed that there was close agreement between the experimental measurement and the numerical simulation. The measured average temperature was 8.1 °C compared to the simulated average temperature of 8.6 °C. The measured maximum and minimum temperatures were 21 °C and -7.8 °C, respectively, while the numerical simulation maximum and minimum temperatures were 17.8 °C and -7.5 °C, respectively. For the five-year seasonal simulation, the system became fully charged by June 14. The maximum temperature the sand-bed achieved annually was 24.83 °C, occurring approximately on July 10, with a minimum of 11.1 °C occurring on January 24. The results demonstrate that sand-bed solar thermal storage systems are suitable for climates in regions with long periods of freezing temperatures which can contribute towards the net-zero energy status of a residential home.



## Friday Session IV: 15:30-17:00

Room: *To be Announced in Final Schedule*

Session Topic: Teaching Experiences, Pedagogy, Practice & Praxis

Session Chair: *To be Announced in Final Schedule*

### **45096**

#### **The Effect of Gamification Elements on Engagement and Achievement in Calculus 1 and 2**

Leslie Molnar, College of the Rockies, Canada

Gamification is increasingly being used in educational contexts to attempt to increase both student engagement and achievement. In this study, gamification elements were added to pilot course offerings of post-secondary Calculus 1 and Calculus 2. The online courses were offered in the overarching form of a pirate quest to retrieve sunken treasure. Gamification elements included badges, points, progression/scaffolding/levels, unlockable content, progress bars, immediate feedback, and replay/do-over options. Students responded positively to the gamification elements, particularly the ability to re-do assignments until a mastery level was achieved. Engagement was positively affected. The sample sizes were too small to show statistically significant improvements in achievement. This paper reviews the literature surrounding the use of gamification elements, analyzes the results of these pilot course offerings, and provides suggestions for next steps.

### **43568**

#### **Elementary Preservice Teachers' Beliefs About the Image of Science Teaching**

Sumreen Asim, Indiana University Southeast, United States

This study examines elementary preservice teachers beliefs before and after the implementation innovative inquiry-based science methods course. This study draws upon the educational research about teacher beliefs, with a focus on work in teacher beliefs from the field of science education and specifically, the work in teacher candidates' beliefs about elementary school science education. The images of science teaching in an elementary school setting. Preservice teachers had learned science with inquiry and how they teach science in various learning environments. Data were collected through reflections, drawings and narratives. Findings indicated that most participants low confidence and had simple conceptual beliefs about teaching science at the beginning of the study surrounding the ideas of fun and hands-on. However, they all had complex and student-centered beliefs at the end of the study including ideas of learning science outdoors, engaging students in scientific knowledge, science tools and practice. Some common beliefs at the end of the study were that participants believed in inquiry-based practices and technology integration. Based on the findings it can be said that inquiry-based modelling along with embedding technology in science methods course has a positive impact of preservice teachers and their science teaching. Further implications include the need for teacher educators to model the use and integrate learning environments beyond the classroom; along with the need for sessions wherein teacher candidates can practice teaching science in both formal and informal science settings, which also includes reflection on their beliefs about science instructional practices.

### **44800**

#### **Going Backward in Technology to Move Forward: Physics Teaching and Learning**

Hashini Mohottala, University of Hartford, United States

The rapidly changing modern technology invites our students to become autonomous learners, encouraging them to be self-directed. However, it doesn't always nurture their confidence in decision-making. Modern

technology alienates students from reality and detaches them from positive engagement. In other words, it produces an 'independent' individual and presents to the society who strongly depends on technology. As educators, we must encourage individual growth in students while maintaining the balance with modern technology. Keeping this in mind, we introduced a new teaching tool to Physics lecture-rooms to cultivate interdependence and positive engagement among peers. To achieve this goal we stepped backwards and created a tech-free environment in the classroom allowing students to proactively engage in problem-solving. We experimented this pedagogical tool in intro-level Physics courses with Engineering majors. In this exercise, small groups were formed with five students in each and experimental based problems were given to each along with low-tech row materials. Although a lack of interest to talk was observed at the beginning, later students moved out of their comfort zones and designed, low-tech experiments to find out solutions to the assigned problems. Students were graded for contribution, creativity and accuracy. They were eager to learn through these types of exercises, and found their Physics laboratory experiments more meaningful. Lab reports improved significantly and students became more vocalized active participants. Indirectly it built the skills and attitudes required for positive engagement in diverse and globalized communities.

## Friday Session IV: 15:30-17:00

Room: *To be Announced in Final Schedule*

Session Topic: Language Development & Literacy

Session Chair: *To be Announced in Final Schedule*

**45083**

### **New Literacy Practices: Imaginative Implications for 21st Century Literate Identities**

Lisa Delgado Brown, Oklahoma City University, United States

The purpose of this qualitative research study was to explore the intersection of new literacy practices and literate identities. The experiences of young adolescents were examined to better understand how these experiences and their perceptions impact the development of their literate identities in multiple contexts. As such, this study sought to explore the following research question: How were the literate identities of sixth-grade adolescents shaped by the new literacy practices in which they participated? This study illustrated that the socio-cultural underpinnings of New Literacies were directly tied to the meanings young adolescents developed from the various literacy webs in which they interacted. Exploring the connection between the various digital communities of practices in which young adolescents traversed offered great insights about possible implications that these communities may have had upon their literate identity formation. The IAFOR conference website asks 'how do we help our students build the skills and attitudes necessary for positive engagement in distributed, globalized communities.' The first step is understanding adolescents' literate identities and the communities of practice in which they navigate. As educators, we can use this knowledge to better understand our students, specifically how the literacy practices in which they participate directly impact their overall identity perception. These understandings should guide our future teaching practices and tie directly to the themes of the conference: independence and interdependence.

**44328**

### **Developing Intercultural Literacy Through Foreign Language: Review of Learning and Teaching Models and Practices at University in Japan**

Mico Kevin Poonosamy, Josai International University, Japan

Japan educational institutions are currently facing the critical need to develop more global human resources - people capable of thinking independently and flexibly, and taking leadership in culturally diverse international environments. The Japanese Prime Minister's Council on Promotion of Human Resource for Globalisation Development clearly (CPHRG) states that as globalization gathers speed for the international economy of the 21st century, it is of great necessity to continuously develop global human resources who possess rich linguistic and communication skills and intercultural experiences, and thrive internationally (CPHRG, 2011, par. 3). But education in Japan has long functioned as a means of transmitting the unique culture the Japanese people have developed over the centuries; it emphasises conformity. Japanese universities are currently facing the urgent need to make the transition from a conventional theoretical content-driven language education model, towards inquiry-oriented curricula that develop communicative and intercultural competence. This paper will review the literature about language education at university level in Japan. It will discuss the tensions between the Japanese educational beliefs and values, and messages of modernity, critical thinking, intercultural literacy development, and the self as agents of change and progress which are usually more associated with Western educational models.

**44513**

### **Revisiting "Tech-Fictive" Literature: What is Lost and What is Gained in the Formative Literary Mind?**

E. Christina Belcher, Redeemer University College, Canada

Digital technology is rapidly replacing the humble picture book in educational function. Elementary educators and scholars alike must consider its merits and disadvantages in light of the literary formation of students. Pondering the nuances of tech-fiction literature (as developed by Belcher, 2017), this paper looks at the value of story, its purposes past and present, and its possible outcomes in crafting the creative imagination of children towards a love of reading. Fairy tales developed a clear division between good and evil, to assist children in seeing consequences for actions from a moral perspective. Such stories were shared within families, becoming staple bedtime stories (Heath, 1982; Bettelheim, 1977). Storytelling embodied a communal perspective, where shared myths and tales became communally known. As wordless books became more common, communal stories gave way to the individual perception of story. Via images, each reader could construct a story with no shared understanding. Tech-fiction literature, with its ability to amuse, currently draws the reader into individual perspectives of the author (revisioning older picture books) to embrace technology for the lone reader. This paper considers the outcomes and possible benefits and challenges of the use of story in the formative literary years, and attempts to answer the question: Is storytelling as an agent of the creative imagination enhanced or truncated by rapid changes in story form, and if so, what could be the effect on young readers? What will survive if there is a demise of the picture book?

## Friday Session IV: 15:30-17:00

Room: *To be Announced in Final Schedule*

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

Session Chair: *To be Announced in Final Schedule*

### 44505

#### **The Culture of Writing and the Writing of Culture: Organizational Connections and Pedagogical Implications of ESL Writing in Multilingual Setting**

Randy Magdaluyo, University of Pennsylvania, United States

One pressing concern among ESL writers is the confusing differences that exist between the conventions of writing in their first and target languages. Previous studies show that rhetorical organization of ideas in writing is assumed to be an activity embedded in culture (Kaplan, 1966; Kachru, 1997). In second language learning, writing basically involves overcoming the differences between the linguistic systems of the first and the target languages (Brown, 2000). However, whether writing is done in first or target languages, one is expected to follow a basic structure of introduction, body and conclusion. In this study, samples of argumentative essays of thirty Filipino college ESL students from three distinct linguistic backgrounds (Cebuano, Chavacano and Tausug) were analyzed to explain the complex nature of ESL writing in a multilingual setting. Anchored on Rhetorical Structure Theory, the writing samples were described based on their organizational structures and features. The nature of word order, sentence construction and the specific components of students' essays were quantitatively and qualitatively analyzed based on ESL writing models. Results suggest that while the overall organizational features of the students' essays did not differ significantly, an interesting observation can be made on the word order and sentence structure of students' essays based on their respective linguistic backgrounds. This further indicates that a writing pattern seems to be unconsciously integrated in students' writing. As such, implications for the teaching of ESL writing using Anglo-American models and students' community funds of knowledge (Moll, 1992) within independent physical and virtual spaces were discussed.

### 45092

#### **How English is Written by Japanese College Students**

Shigeyuki Suzuki, Tokyo Kasei University, Japan

The presenter will demonstrate how difficult it is for Japanese learners of English to write adequate English paragraphs because of the differences between the two languages in terms of presenting information logically. Kaplan (1980) says that 'each language and each culture has a paragraph order unique to itself, and that part of the learning of a particular language is the mastering of its logical system.' Therefore an English paragraph with correct grammar is not necessarily well written. English education in Japan has long focused on the importance of receiving information written in English. Historically it has been necessary for Japan to educate its people so that they have good command of English to acquire knowledge that is lacking in Japan. It is natural that receiving information written in English in the international society has long been the primary focus of education. Therefore, translation of written English into Japanese is highly emphasized. On the other hand, presenting information in a logical way has not been considered important. It is true that students are taught how English should be written, but grammatical correctness is the priority in the teaching of written English in Japan. With the help of writing samples from college students, the presenter will demonstrate how English is often written by Japanese college students.

### 44354

### **Learning Japanese with Gestures**

Naomi Wilks-Smith, RMIT University, Australia

This session presents the findings of a research project that investigated the impact of Intentional Teaching Gestures on primary school students' learning of Japanese as a second language. A quasi-experimental approach was used to investigate the impact of 170 students' learning with gestures. Students' oral telling of stories in Japanese was used as a measure of their oral language output for comparison between learning with and without gestures. The study collected both quantitative and qualitative data. Quantitative data informed the question of how much language students produced, whilst qualitative data provided evidence of the features of students' language when learning with and without gestures. Findings will be shared that reveal the pedagogical value of Intentional Teaching Gestures including gestures as a scaffolding tool for teachers and as a recall tool for learners.

## Friday Session IV: 15:30-17:00

Room: *To be Announced in Final Schedule*

Session Topic: Design, Implementation & Assessment of Innovative Technologies in Education

Session Chair: *To be Announced in Final Schedule*

### 45325

#### **An Inquiry-Implement-Expression Teaching of Internet of Thing Integrated to Physics Course**

Tsun-Hsin Wang, Taichung Municipal Chung-Gang Senior High School, Taiwan

Wen-Sun Chou, Taichung Municipal Chung-Gang Senior High School, Taiwan

Sidney Chang, Taichung Municipal Chung-Gang Senior High School, Taiwan

Tsan-Pin Wang, National Taichung University of Education, Taiwan

Hsiao-Shen Wang, National Taichung University of Education, Taiwan

Hsiao-Hsi Wang, Providence University, Taiwan

Kuo-Yu Liu, Providence University, Taiwan

An inquiry-implement-expression teaching of Internet of Thing (IoT) integrated to physics course at a senior high-school is proposed in this work. The teaching methods include inquiry teaching, implement process, and expression assessment. The simulation programs, so-called VPhysics course, on Physics kinematics and mechanics were developed with Visual Python program and IoTtalk which is provided by Professor Yi-Bing Lin. Our action research shows the students with inquiry-implement-expression teaching have better performance over conventional teaching counterpart due to higher learning motivation, more activity engagement, and wider innovation-ability.

### 44607

#### **Development and Application of Augmented Reality in the Teaching of Microscopic Particles in Junior High Schools in Taiwan**

Wen-Lung Wu, The National Academy for Educational Research, Taiwan

Virtual Reality (VR) and Augmented Reality (AR) are currently the two most widely discussed simulated reality technologies. This research will explain abstract concepts with the use of the latest augmented reality technology, and develop corresponding teaching strategies. The Interactive Microscopic Augmented Reality (IMAR) developed in this research, which simulates the motion of particles in the three states of matter and the transition between three different states. The characteristics of IMAR are (1) Using three-dimensional (3D) simulation in substitution for animation, which allows users to observe the motion of particles from any angle and (2) integrating special effects into teaching. For instance, the color-coded particles can help users observe particles more easily. The movement tracks and screenshots of the particles can be used for further discussions. This study includes several interviews and an empirical teaching study. The conclusions of the research are as follows: (1) The design of the 3D model in AR should also integrate with hands-on activities so as to allow the real and virtual worlds to complement each other. (2) The purpose of the particle model used for teaching is different from that of a scientific model. It places great emphasis on the integration of special effects and teaching methods, and makes software application more relevant to teaching in the classroom. (3) AR should be able to develop students' multiple representation skills and ability to learn on their own through interactive activities. (4) Augmented-reality teaching can help students learn the abstract concept of particles.

### 44709



**The Sharing Cycle of Science Learning: A Method to Connect College STEM Courses with Tribal Community Topics that Enhance Sovereignty**

Mark Griep, University of Nebraska-Lincoln, United States

Beverly DeVore-Wedding, University of Nebraska-Lincoln, United States

Janyce Woodard, Little Priest Tribal College, United States

Hank Miller, Nebraska Indian Community College, United States

American Indian students are underrepresented in all science and engineering fields by almost 50%. At the same time, the fastest growing occupations for the past half century require knowledge of science and mathematics. To address the need for relevant science training, the 'Framing the Chemistry Curriculum' project was created by the University of Nebraska-Lincoln (UNL), Little Priest Tribal College (LPTC), and Nebraska Indian Community College (NICC). These partners iteratively developed a model to increase the number of tribal college students taking an introductory chemistry course. Specifically, the goal was to create sustainable chemistry laboratory experiences at NICC and LPTC. Our hypothesis was that American Indian students will be more inclined to engage and persist in chemical education when lessons and laboratory activities are framed within the context of community-relevant topics because of their strong sense of kinship and place. Since these colleges have low enrollments, the project was assessed using mixed methods to learn about attitudes and engagement. The following four objectives were completed: (1) An Advisory Board of local scientifically-oriented stakeholders developed the frame's tribal community topics; (2) Created a lab manual that connects these topics to chemistry content; (3) Developed a two-semester chemistry sequence, integrating lecture and laboratory experiences; and (4) Disseminated the method locally and regionally through workshops, outreach, and recruitment. The most common statement from the several dozen students who took the course is that it helped them understand why chemistry is important. NICC also hired a full-time science instructor to teach several chemistry courses.

## Friday Session IV: 15:30-17:00

Room: *To be Announced in Final Schedule*

Session Topic: Learning Experiences, Student Learning & Learner Diversity

Session Chair: *To be Announced in Final Schedule*

**44333**

### **If You Succeed, I Succeed! – Reciprocal Learning Through Musical Theatre Production**

Amanda Jacobs, Capella University, United States

The purpose of this grounded theory study was to gain knowledge about how learning occurs in musical theatre production (MTP) since little is known about how thespians learn and create a show. MTP brings together all artistic disciplines and people with varying degrees of education and skill sets. Successful production requires both learning and contribution from all participants, a process that does not follow the traditional classroom model. By posing the research question, 'What are the learning experiences of thespians developing a musical theater production?' and utilizing a Charmaz model of grounded theory methodology, snowball sampling technique was used to recruit participants with Broadway or Off-Broadway experiences. Twelve participants answered 13 questions in face-to-face, semi-structured interviews. Interviews were transcribed and coded in a systematic series of steps revealing three distinct aspects that construct the learning process: there is a defined structured organization focused on creative empowerment, support for the development of productive collaborative efforts, and the personal attributes of high self-efficacy and attribution as significant themes in the learning environment. The study showed that when these are successfully combined in the framework of rehearsals, a show is learned through a process called reciprocal learning. Learning in MTP is an exemplar model for learning because it requires a specific structure, vision, and leadership that requires participation from all, and promotes development of positive self-attributes. Reciprocal learning theory can be applied in traditional settings for learning.

**44438**

### **Understanding and Helping Students Succeed: Addressing Generational Differences & Mental Health Issues in Universities**

Lorna E. Rourke, University of Waterloo, Canada

Lorraine Carter, McMaster University, Canada

Today's GenZ and Millennial students may present challenges for the GenX and Baby Boomer faculty who teach them, and vice versa, since the values and views of the two groups are often very different. Today's students learn, interact, and study in ways that differ from those of previous generations. Faculty may have trouble relating to, engaging with, and helping these students learn and succeed. In addition to this generation gap between students and faculty, universities are seeing a dramatic rise in the number of students seeking help – and, tragically, not seeking help – for serious mental health issues. This combination of the generation gap between faculty and students and the student mental health crisis is creating serious problems. While universities try to address these issues, suicide rates are rising and some students are unable to find the help they need. In this session, a university librarian and an administrator will explore the generational characteristics of students and faculty and the ways in which the mental health crisis is affecting both groups, and will suggest effective ways for faculty to work with and support these students. Insights will be shared based on a literature review, an overview of the ways in which universities are addressing mental health issues, and consideration of case studies. A quiz activity will highlight the mental and emotional health needs of today's students. The session will end with a discussion of strategies for working well with today's students and for addressing their mental health needs.

**43319**

**A Snake Charmer Without the Music: Motivating the Students of Today**

Amelia Simmons, East Georgia State College, United States

Natasha Goss, East Georgia State College, United States

It is the purpose of this paper to describe intrinsic motivation and to explain how the application of intrinsic motivation through meaningful, personable assignments in such forms as research, social media, and critical thinking helped eradicate the lack of student motivation within a classroom. The identification of the differences between intrinsic and extrinsic motivation created an environment in which the students became more active in their education and enhanced communication between the teacher and the students. Increased work ethic and communication in the classroom setting were increased by the application of research, social media, and critical thinking within the scope of personable assignments geared toward intrinsic motivation. Too much pressure is placed upon educators to survive the jungle of teaching the students of today, making a good impression, and earning high test scores. The challenging part of achieving motivation is how the work is presented to students and whether it embodies an intrinsic or extrinsic notion.

## Friday Session IV: 15:30-17:00

Room: *To be Announced in Final Schedule*

Session Topic: Agriculture: Forestry & Industry

Session Chair: *To be Announced in Final Schedule*

**45131**

### **Object-Based Forest Cover Change Mapping Using Remote Sensing in Nuristan Province, Afghanistan**

Shogufa Popal, Kabul University, Afghanistan

Satoshi Tsuyuki, The University of Tokyo, Japan

Deforestation and forest degradation are among significant environmental issues in Afghanistan but has not been studied intensively due to insecurity, confined budget, lack of expertise, and limited accessibility to new technology. In such a situation, remote sensing technology offers practical and economical means to acquire reliable, consistent, and up-to-date information for assessing forest cover and monitoring its spatial and temporal dynamics. Therefore, this study aims to map forest cover changes and to quantify forest loss and gain between 1998 and 2016 in six districts of Nuristan Province in Afghanistan using medium resolution Landsat series data (Landsat TM and Landsat OLI). Our methodology comprises of (i) preprocessing of Landsat images using TNTmips (ii) object-based image classification using eCognition Developer 9, (iii) mapping forest cover change, and (iv) quantifying forest cover loss and land cover dynamics. The results showed that although deforestation in six districts of Nuristan Province has not occurred in a large scale, the forests have been continuously degraded between 1998 and 2016. Meanwhile, the performed accuracy assessments on maps showed that the utility of high-resolution images for choosing training samples in Landsat images resulted in relatively high overall accuracies (>91 %). Overall, this study can be utilized as a baseline data of forest cover and its spatial and temporal dynamics of Nuristan Province, where the effort was to exploit the potential of freely available, medium-resolution Landsat data series that might contribute in future forest management, restoration, and conservation at a local, provincial, and national level in Afghanistan.

**44431**

### **Current Situation of Non-Thermal Plasma (NTP) Ammonia Synthesis and Its Potential to Build a Sustainable Nitrogen Fixation Industry**

Peng Peng, University of Minnesota, United States

Paul Chen, University of Minnesota, United States

Min Addy, University of Minnesota, United States

Charles Schiappacasse, University of Minnesota, United States

Yanling Cheng, University of Minnesota, United States

Nan Zhou, University of Minnesota, United States

Roger Ruan, University of Minnesota, United States

Ammonia has more sustainable applications than being a fertilizer. Its emerging applications include hydrogen carrier, fuel cells, clean transportation fuels, and other off-grid power applications. The environmental and centralization problems associated with the conventional Haber-Bosch process are great limitations to the current nitrogen fixation industry. Currently, the Haber-Bosch production of ammonia around the world is centralized Hence it is critical to introduce a sustainable nitrogen fixation process under low temperature and pressure conditions. The non-thermal plasma (NTP) allows for the synthesis of ammonia at a lower temperature and pressure conditions. It is proposed that the moderate process conditions can potentially allow a more economical construction and operation of ammonia production

systems on distributed farms and renewable hydrogen production sites. In this presentation, we will discuss the past and current situations, and the most recent development on the NTP ammonia synthesis (from both our lab and other published studies). Next, analysis and recommendations will be made on the potential of changing the ammonia production industry using this technology, leading to further discussions on how to improve the current ammonia production infrastructure to a more sustainable fashion.

## Friday Session IV: 15:30-17:00

Room: *To be Announced in Final Schedule*

Session Topic: Economic Sustainability: Climate Change & Higher Education

Session Chair: *To be Announced in Final Schedule*

**43673**

### **Importance of Geographical and Sociological Factors in Household Livelihood Vulnerability to Climate-Related Crisis in Rural Burundi**

Risper Buyaki Nyairo, Osaka University, Japan

Takashi Machimura, Osaka University, Japan

This paper analyses the vulnerability of 2 communes in the provinces of Kirundo and Bubanza in Burundi to climate change using social and geographic variables. Primary socio-economic data was collected through surveys where 450 households were involved in responding to a questionnaire. Data collected included demography, livelihood sources, asset ownership, land management practices, social organization and information sources. Initial data consisted of more than 1000 quantitative and categorical variables but these were reduced to the most representative 38. Selected variables were then used in Multiple Factor Analysis (MFA). Results showed that the first two dimensions of MFA contributed most variability to the data and represented social, financial and human capitals. Variables strongly correlated with dimensions were: education; ownership of cattle, improved structures, water inlets or cellphones; use of pesticides and fertilizers; support from Non-Governmental Organizations (NGOs); membership to associations and rainwater harvesting. Clustering was then done based on five dimensions and yielded 2 clusters, which briefly attributed to the households in two provinces. Elevation, land cover and roads were analyzed in ArcMap to explain the clusters' features. Kirundo (1434m) had higher elevation than Bubanza (969m) but less tree cover with more shrub and grasslands. Bubanza had significantly more croplands. The slopes were moderate to strong. Land cover differences were attributed to human factors and they exacerbated vulnerability. The study concludes that Bubanza is less vulnerable than Kirundo but rural development and institutional policies should be prioritized in both regions to enhance adaptive capacity and reduce vulnerability to future climate-related hazards.

**44732**

### **The Causal Nexus Between Food System, Economic Development and Environmental Pollution in Selected Emerging Economies**

Kingsley Appiah, Jiangsu University, China

Jianguo Du, Jiangsu University, China

Michael Yeboah, Kumasi Technical University, Ghana

John Poku, Kumasi Technical University, Ghana

Potential challenges pose by global warming on world food security, and agriculture has reached its critical stage. In general, carbon stock continues to increase. Notably, carbon footprint created by global food waste poses greater threats to food security, economic development and waste of natural wealth. The Provisions of sectoral actions meant to curtail greenhouse gases related to food waste need to look at how to transform the ecological effects of agriculture from negative to positive while meeting the food production needs. To extend the frontiers of recent empirical study on agricultural system-growth-pollution nexus, our study examined causal nexus between food system, economic expansion and ecological pollution in selected rising economic power states from 1971 to 2013. Food system releases emissions that increase the global carbon stock, including methane emitted by ruminants, emissions from fertilizers used in the provision of feed and manure management. Using DOLS and FMOLS, empirical findings revealed that, 1% increase in

economic progress, meat and milk production causes increases in emissions by 14.7%, 32.5% and 5.8% respectively. While a 1% increase in hotspots commodity like vegetables improves the ecological system of emerging countries. Dumitrescu-Hurlin Granger's causality test was used to check direction of causation. To ensure sustainable food system and reduction of carbon intensities, emerging economies require effective and innovative practices in the agricultural sector.

**44433**

**A College Town and Sustainable Economic Development: University of Hawaii at Hilo**

Helen Tien, University of Hawaii Hilo, United States

Tam Vu, University of Hawaii Hilo, United States

This paper investigates the economic impact of the University of Hawaii at Hilo (UHH) on the Hawaiian community. The paper examines the proportion of Hawaiian population with college enrollments and graduates on the Hawaiian sustainability. Our regression analysis focuses on two scenarios of the augmented production function. The first analyzes the aggregate effect of UHH on the economy in Hawaii County, and the second analyzes the sectoral effect of each college at UHH on each economic sector in Hawaii County. In each scenario, the benchmark variable is either enrollments per capita or graduates per capita. The dependent variable is either labor productivity, which defined as output divided by employment, or per capita income, which defined as income divided by population. The results show that both benchmark variables affect Hawaiian economy positively. These results are robust for both models on productivity and economic growth. The sectoral effects are different for different sector although they are all positive. Some sectors have larger effects on the economy compared to the aggregate effect while some have a smaller effect than the aggregate effect. Based on the aforementioned analyses, we provide policy implications for the state of Hawaii and the university as well as a plan for updating the information in the future.



**Saturday at a Glance**  
**January 5, 2019**

08:30-09:00 Coffee | Room 302

09:00-11:00 Parallel Session I

11:00-11:15 Coffee Break | Room 302

11:15-12:15 Parallel Session II

12:15-13:15 Lunch Break | Room 302

13:15-14:45 Parallel Session III

14:45-15:00 Coffee Break | Room 302

15:00-16:30 Parallel Session II

16:30-17:00 Closing

## Saturday Session I: 09:00-11:00

Room: *To be Announced in Final Schedule*

Session Topic: Professional Training, Development & Concerns in Education

Session Chair: *To be Announced in Final Schedule*

### 45058

#### **Pre-Service Teacher Field Experience Reflections: A Qualitative Case Study on Attitudes Toward Control, Behavior, Students and Self**

Robert Spires, University of Richmond, United States

Deborah Paine, Valdosta State University, United States

JT Cox, Valdosta State University, United States

This study examines the attitudes and beliefs of pre-service teachers serving a four-week-long apprenticeship the semester prior to student teaching. The data set consists of written reflections composed by each teaching candidate in response to prompts assigned for the purpose of stimulating reflective practice. The study's researchers were interested in answering two questions: (1) How do pre-service teacher field experience reflections reveal attitudes towards learning, behavior, and self-efficacy in the classroom? (2) How do pre-service teacher concerns and anxieties in field experience reflections illustrate the gap between evidence-based practices (EVP) in teacher education and the instructional choices of pre-service teachers in their initial field experiences? Participants: This study utilized the daily reflections in journal form written by pre-service teachers during a four-week practicum experience, known locally as apprenticeship, at a regional comprehensive university in the Southeastern United States. Participants include 31 pre-service teachers in both an undergraduate middle grades education and a master's secondary education initial certification program. Results: The results of this study further illustrate the gap that exists between evidence-based practices (EVP) in teacher education and the attitudes and beliefs of pre-service teachers and the instructional choices they tend to make during their field experiences. Several key themes emerged from the data, including control, student behavior, pre-service teacher self-perceptions, and pre-service teachers' perceptions of students. The "control" theme was particularly evident as the primary concern of pre-service teachers.

### 43773

#### **Effect of Reflective Teaching Practices on the Performance of Prospective Teachers**

Madiha Zahid Pervez, Lahore College for Women University, Pakistan

Affia Khanam, Lahore College for Women University, Pakistan

Ghazala Noureen, Lahore College for Women University, Pakistan

The present research aims to examine the effect of reflective teaching practices on prospective teachers' performance. Reflective teaching practice helps teachers to plan, implement and improve their performance by rethinking about their strengths and weaknesses. An experimental study within an action research was conducted by the researchers. All prospective teachers of sixth semester in a women university's teacher education program were the population of the study. From total 40 students, 20 students were taken as experimental group and the rest of 20 students were taken as the control group. During the action research, a cyclic process of producing a module, training teachers for the reflective practices and then observing them during their practicum for replication of reflective practice was done by the researchers. The researchers used a set of tests and a rubric for assessing prospective teachers' performance before, during and after their training as well as their teaching practice. Finally, the module was modified with the help of findings. It was found that the training had improved the skills and performance of teachers during training as they revised and modified their teaching strategies through reflective practice. However, they were not able

to practice all of the reflective skills in their practicum. The training module was revised in the light of findings and micro teaching strategies were further improved. The study has implications for teacher training programs to include reflective practice training modules as part of their coursework for refining their practicum.

**44267**

**Pathways to Professions (P2P): Preparing Culturally Responsive Educators for Inclusive Excellence**

Yi Huang, Coppin State University, United States

With the overarching goal of inclusive excellence, Coppin State University, CSU Professional Development Schools Network (PDSN) in Baltimore City, Frostburg State University (FSU), FSU PDSN in Allegany County, and the University System of Maryland are implementing the Pathways to Professions (P2P) initiative. The P2P aims to build capacities in delivering high-impact clinical and induction programs for pre- and in-service teachers, while simultaneously bridging opportunity and achievement gaps through improvement of teacher effectiveness and student achievement. The P2P initiative is based on current research in connected learning theories, competency-based micro-credentialing, high impact practices, and improvement sciences; and is anchored by national accreditation standards and state priorities in diversity and inclusion. With the funding support from the US Department of Education, the P2P R&D team has been able to provide unprecedented access to support and services for underrepresented populations in underserved rural and urban communities in Maryland. The early results indicated positive influence on both academic and social emotional growth and development among participants. In this session, the principal investigator will share insights on the P2P model and its three high-tech, high-touch, and high-impact interventions: 1. Connected MegaCommunity for Systemic Capacity and Linkage Building (Goal 1); 2. Connected Learning with Year-Long Clinical Preparation (Goal 2); and 3. Connected Career Pathways with Two-Year Induction (Goal 3). Processes, inputs, and outcomes as well as lessons learned will be discussed. Dialogues with audiences on implications for high-needs communities will be solicited for improvement.

**44449**

**Independence and Interdependence of a Professional Development School Partnership**

Rob Sumowski, Georgia College, United States

Joe Peters, Georgia College, United States

Professional Development School (PDS) Partnerships have the potential to not only provide unique experiences for teacher candidates, but can also provide important professional development for the teachers and administrators in the schools involved in the relationship. According to the National Association of Professional Development Schools, a key essential is 'a comprehensive mission that is broader in its outreach and scope than the mission of any partner and that furthers the education profession and its responsibility to advance equity within schools and, by potential extension, the broader community.' Our PDS is a model for how this joint mission is beyond each institution's ability to provide the experiences and services in isolation. Although both the school district and the university are independent entities, their interdependence in the PDS allows us to accomplish the overarching mission to improve education at all levels in our community from six weeks old to the doctoral level. The benefits are initiatives such as a joint Montessori Academy for babies through kindergarten children, participation on advisory councils, and a grade seven through twelve early college at the university. Our classrooms are all available for university faculty to do research, preservice teachers can practice and observe teachers, and first generation at-risk students have the support they need for 100% college placement. Professional development by university faculty and district staff in areas such as Positive Behavior Interventions and Supports allow district teachers a unique professional development experience and the ability to continue and achieve a university certificate for their participation.

## Saturday Session I: 09:00-11:00

Room: *To be Announced in Final Schedule*

Session Topic: Curriculum Design & Development

Session Chair: *To be Announced in Final Schedule*

### 44226

#### **The Skills Gap: Are We All to Blame?**

Paul Dwyer, North London Collegiate School, United Kingdom

Elizabeth Wells, North London Collegiate School, United Kingdom

Expectations around the kinds of skills that that students require to succeed in the 21st century workplace are shifting. It is now expected that students possess strong technological literacy and understanding, alongside being "creative thinkers", "innovators", "disruptors". Such evolution of the working world has served to place more pressure on schools to ensure that students are not ill-equipped upon graduation. This paper explores the debate around how far the demands of the workplace should shape the classroom experience of students, as well as the impact that such changes have had on more traditional approaches to curriculum design and delivery. We highlight ways in which schools have adapted their approaches to ensure that students are exposed to greater opportunities to engage in problem-solving or develop flexibility of thinking, as well as which changes have been particularly successful. Using a series of case studies, we are also able to outline the issues that adapting the curriculum to suit "21st century demands" can entail, including ways such changes can serve to undermine the very skills that they strive to develop. Our final thoughts are devoted to how careers education needs to be greatly improved and embedded more deeply within the school curriculum. This involves a model for how businesses and employers might get more involved on a local and national level, while still being driven by educators.

### 42228

#### **Working in Silos: A Report on the Coordination of Course Collaboration at a Japanese University**

Gary Cook, Hiroshima Bunkyo University, Japan

Universities can be workplaces where staff work in silos. Teachers are often left to their own devices when designing and implementing curricula. Whilst the freedom of independence may be welcomed by teachers, it can lead to missed opportunities such as the chance to encourage a spiral curriculum. This presentation will report on the coordination of staff teaching on a variety of English courses across four years at a small women's university in Japan. Tasks asked of teachers were chiefly related to the creation of a shared google document containing separate tabs for each course. The Common European Framework of Reference for Languages (CEFR) was employed as a tool for teachers to choose language goals in the form of "can do" statements. Teachers were required to add course assessments, rubrics and test specifications where applicable. Additionally, columns were created for any comments or suggestions related to the course. Finally, a chart showing all courses was created to display progression of course levels throughout the curriculum as a whole. While in its infancy, initial feedback from teachers involved in this project has highlighted the importance of course collaboration to increase knowledge and improve transparency for both teachers and students alike. Further benefits, along with shortcomings, will be discussed and recommendations given for the coordination of language courses at similar institutions.

### 43489

#### **Building Math Mastery in Early Childhood Through Adaptive Technologies**

Anastasia Betts, University of Buffalo, United States

Childhood mathematics achievement has been associated with success in later schooling, and is predictive of later success and adult socio-economic status. Despite the critical need for strong mathematics skills, not all learners are able to develop them. It is well-documented that children enter school with different levels of mathematics skills and understanding. These gaps in learners' foundations not only cause students to lag behind their peers, they also make it less likely that such students will find career success after formal schooling. A growing body of research exists documenting the impact of early school mathematics achievement and its relationship to later mathematics achievement in school. It has proven challenging, however, to help all young students achieve the mastery of important foundational concepts and skills in mathematics. There is promise, however, in using adaptive technologies designed to efficiently identify what the child already does or does not know, and what the child is ready to learn next, thus keeping students in the zone of proximal development. This presentation focuses on the design of and recent research related to a promising new adaptive platform that teaches mastery of number sense foundations in a virtual environment. Early results show that students are not only able to master important key concepts and skills in a very short amount of time, but that the system is able to effectively and efficiently monitor and move students through the architecture of concepts and skills using personalized learning trajectories optimized for maximum learning.

**45139**

**Adapting Higher Education Curricula to Reflect an Interdependent World**

Elizabeth Song Lockard, Chaminade University, United States

While primary school education has evolved over the last few decades to respond to diverse modes of intelligence and learning methods, the benefits of active classroom techniques, and the importance of play and fearless exploration, post-secondary institutions have lagged behind in incorporating such innovation. With some exceptions, collegiate curricula are still grounded in a silo system of majors, minors, and discipline-segregated programs or departments. The structure of specialized study does not reflect, nor adequately prepare students for, the complex, interdependent, and rapidly changing nature of the way knowledge in the 21st century is acquired and applied. The convention of training students in a major and embedding that within a separate and distinct liberal arts curriculum was an effort to produce well-rounded graduates who are competent in basic core skills. However, that pedagogy partitions the way in which students participate in higher education, and ignores the opportunity to truly integrate curricula. The enormous problems we now face will not be solved by a single discipline, but rather through a consortium of disciplines, the boundaries of which will become indistinguishable as they merge at a higher level of sophistication. In response, the structure of higher education must be re-envisioned to recognize and leverage the relationships between discrete fields of study and to establish new fields of inquiry that reside in those interstices. This paper will offer both a critique of the traditional pedagogy and proffer another kind of curriculum that cultivates interdisciplinarity.

## Saturday Session I: 09:00-11:00

Room: *To be Announced in Final Schedule*

Session Topic: Curriculum Design & Development

Session Chair: *To be Announced in Final Schedule*

**44435**

### **Keeping Hospitality, Travel, and Tourism Students on the Pathway: A Guided Learning Journey to Success with Eportfolio**

Leslie Gail Scamacca, The City University of New York/LaGuardia Community College, United States

This presentation shares progress of Travel, Tourism, and Hospitality faculty at an urban community college in their undertaking of curriculum review following a guided pathways approach. This two-year project is funded through the college's Center for Teaching and Learning and focuses on several key objectives, such as making connections between the various courses throughout the curriculum; helping students make connections between their diverse experiences; and facilitating integrative learning and reflection activities for students. These connections are leveraged through the development of a core student ePortfolio. This project is guided by four pedagogical practice areas from the American Association of Community Colleges (AACC). These main practice areas informed specific phases of this project and include; mapping pathways to student end goals, the College has developed a framework for advanced student learning which include core competencies (Inquiry and Problem Solving, Global Learning, and Integrative Learning) and communication abilities (Oral, Written, and Digital); helping students choose and enter a program pathway, the second phase focused on preparing students for the economy, for democracy and global community, and to pursue their own hopes for a better future; keeping students on a path, the third phase helps keep our students on a path to graduation and success; and ensuring that students are learning, here, we shift the focus from passive listening to students' own engagement with questions, problems, and community or work-based projects.

**44352**

### **Purpose of Mindfulness in Teaching Learning Process: Perspective of Buddhism**

Pramila Bakhati, Lumbini Buddhist University, Nepal

Mindfulness is the mental awareness and practices as a tool for purification of mind for creative doings, ultimately which nurtures students' all-round development. It is beneficial to everyone as it helps to maintain the mental health with increased abilities/skills, efficiency and productivity as well. It develops insight and wisdom, eventually supports for the best human qualities of kindness, empathy, compassion, and equanimity. As a new paradigm shift, the mindfulness approach in the education system is becoming crucial to reducing the possible mental health problems such as the depression, stress and anxiety disorder experienced by the youths around the globe. Therefore, the schools unquestionably have the mandate to offer such education which can help to create the students with the healthy mind. However, if the students do not receive the proper education to cultivate a healthy mind then the learning outcomes may be in wrong directions. In this regard, teachers can play a vital role to promote mindfulness curriculum and activities in schools through available practices. This paper discusses on conceptual understanding of mindfulness at first. Then it illustrates the purpose of mindfulness in the teaching-learning process. Afterwards, it describes the trend of Mindfulness schools with the role of teachers and ends with a conclusion.

**44614**

### **Utilizing Experiential Learning and Electronic Portfolios to Create Lifetime Learning Opportunities in Exercise Physiology Curriculum**

Brian K. McFarlin, University of North Texas, United States  
Erin M. Bowman, University of North Texas, United States

Over that past five years, higher education has gradually shifted away from traditional face-to-face lecture to experiential learning approaches. Experiential or project-based learning tasks allow students to apply learned knowledge using real-world situations. These learning tasks allow students to develop skills related to team-work, communications, critical thinking, and problem solving among others. The development of future-proof skills is critical for students to succeed in the chosen career path after graduation. Our implementation of this instructional strategy centers around an upper division exercise physiology course that traditionally has a high fail rate due to content difficulty. We demonstrated that by shifting the course to an experiential learning model, we were able to reduce the fail rate and increase student understanding of complex content. While experiential learning courses are effective, one major limitation is that it can be difficult for students to demonstrate knowledge of future-proof skills to potential employers. To combat this limitation, we utilized an electronic portfolio tool that is available campus wide. The electronic portfolio allows students to track future-proof skill acquisition and refinement over their entire college career. Upon graduation they have access to a dedicated electronic portfolio website that can be shared with future employers as part of a standard application process.

**43368**

**Examining the Misalignment Between High School Physical Education Courses and the University Physical Education Preparation Programs**

Susan Bertelsen, Metropolitan State University of Denver, United States

Physical educators are traditionally trained to teach a wide variety of activities to K-12 students. Much of the Physical Education Teacher Education (PETE) curriculum provides movement foundation classes, individual and team activities and teaching methodology. A very small proportion (if any) of the curriculum is dedicated to teaching resistance training techniques, protocol, and program design or other fitness-focused courses. In other words, PETE programs are grossly underpreparing pre-service teachers in weight training and fitness education (Bertelsen, 2016; Bulger, Housner, Lee, 2008; McGladrey, et al. 2014). This presentation will disseminate the results of a study that examined the current state of high school physical education course offerings as they relate to the training of future physical educators. Data was collected from high school physical education department chairs regarding their programs' current offerings in fitness, weight training, and health classes; additional certification or training beyond a bachelor's degree by those teaching weight training; and, the role of nutrition education in physical education. Physical education teacher education (PETE) curriculum data was also collected from 32 University programs in the western U.S. to determine the credit hours required of graduates in a variety of courses including teaching weight training, fitness, health and nutrition education. Although several courses types were examined, the focus of these results shed light on the weight training and fitness-related curriculum – or lack thereof. This 'misalignment' warrants attention to the specific training that teachers are receiving in these subjects.



## Saturday Session I: 09:00-11:00

Room: *To be Announced in Final Schedule*

Session Topic: Teaching Experiences, Pedagogy, Practice & Praxis

Session Chair: *To be Announced in Final Schedule*

### 44214

#### **Pikipiki Hama Kae Vaevae Manava: An Oceanic Framework for Success**

Ema Wolfgramm-Foliaki, University of Auckland, New Zealand

Pikipiki hama means to stick, bind or link strongly to the outrigger of a vaka moana (ocean going canoe). Vaevae means to give, share or to gift and manava is a core word in Pasifika contexts which refers to the heart, centre, womb or breath (Tui Atua Tamasese Taisi Efi, 2003). This saying is used to describe the ancient practice of lashing together vaka moana as they traversed the Pacific Ocean to share resources (food, water), swap resources including crew members and share knowledge before untying and continuing on their journey. Pikipiki hama is conceptualised as a framework underpinned by cultural values and traditional ways of being that embodies interdependence while maintaining independence and autonomy. Further it demonstrates how we can effectively navigate this space known as "academe" where sharing of resources and knowledge is key to our success. As a framework it promotes our coming together as teachers, learners, family members together with the wider community to share and learn from one another. In this presentation Pikipiki hama is used to demonstrate how we as Oceanic and Indigenous Peoples can employ our ways of being and traditional knowledge to disrupt and interrogate western forms of teaching and learning practices. Frameworks and pedagogies that are underpinned by indigenous values and ways of being resonate with our students as they support and advance student success.

### 45138

#### **Art and Design in the 21st Century: Teacher Candidates Teaching Experiences Using Technology in Brunei Secondary Schools**

Shamsinar Haji Husain, Universiti Brunei Darussalam, Brunei Darussalam

The 21st century art and design curriculum in Brunei requires teachers to produce higher-order skills for student learning. To achieve this, art teachers should be able to integrate the use of technology in learning by increasing students' participation and involvement in meaningful and challenging learning environments. Technology plays an important role in today's art classroom and knowing how to use it effectively for teaching and learning can be difficult. Therefore, the study of teacher candidates' experiences in teaching 21st century Art and Design using technology is significant to improve the quality and effectiveness of teacher education and training in Brunei. The purpose of this study is to find out 1) how the teacher candidates of Art and Design incorporating technology in their art class, 2) what they use and 3) how they use it in teaching and learning art. The study provides the professional practice experiences to six teacher candidates for twenty-four weeks of teaching in Brunei Secondary Schools. The study utilised qualitative techniques in data collection and analysis. Data from reflective journals, interviews, observations and seminars during the six teacher candidates' professional practice are examined, analysed and described. The findings of the study reveal that teacher candidates are able to integrate the use of technology in students' art learning however, the use of technology in their class is still limited. Some challenges and limitations incorporating technology in the class are also highlighted. Implications for teacher education are suggested.

### 42502

#### **Adapting to the Challenges of Mega-Complexity: Quartic Education for the 22nd Century**

David L. Brooks, Kitasato University, Japan

How will tertiary education cope with, survive, and potentially evolve in the fourth-dimensional paradigm shift occurring now as we complete the first quarter of the twenty-first century? Super complexity in our knowledge-based societies has every appearance of galloping into hyper drive. With the advent of a globalized, interdependent knowledge economy, an international political ecology characterized by chaos and instability with the new alignment of world powers and the conflict spawned thereby, increasingly sophisticated digital media communication and its global synchronicity, and the exponential reframing of our frameworks of knowledge caused by unabated scientific discoveries and new technologies, we have reached the Age of Mega-Complexity in knowing and in being. Thus, we are compelled to think beyond tertiary education, hence the use of term quartic - pertaining to the fourth degree. In this century of transition, what new roles of intellectual authority and in what new forms of institutional integrity can higher education lead us toward the twenty-second century? This thought-provoking thesis of this paper makes a few simple predictions about how higher educational institutions that now exist could offer leadership and leverage for navigating a tumultuous sea of change. Fundamentally, these proposed coping strategies hinge on re-defining the purposes of higher education, re-configuring its operating plane of institutional existence, and re-conceptualizing the relationship between knowledge production and knowledge acquisition. The core message is a set of predictions that are concrete and immediately achievable steps for helping global higher education institutions not only survive, but also thrive in our new millennium.

**44997**

**Learning From Place: An Interdisciplinary STEAM Practicum Semester**

Kevin O'Connor, Mount Royal University, Canada

The purpose of our research was to investigate how teacher candidates' experiences in STEAM field studies with community partners can inform our work with an integrated practicum semester based on a curriculum of place (Chambers, 2008). Place-based education (Emekauwa, 2004; Greunewald, 2003; Penetito, 2009; Wattchow & Brown, 2011) is an approach to teaching that is grounded in the context of community and environment (Theobald & Curtiss, 2000) and seeks to help not only students but also communities through employing students, school staff, educators, scientists and other interested community members in solving community problems (Denise & Harris, 1989). However, emerging research suggests that place-based education is limited because it does not critique colonial legacies in theoretical frameworks of place (Calderon, 2014). Indeed, many Indigenous scholars are replacing the term place with land and argue that land-based pedagogies promote the decolonization of education (Ballantyne, 2014) by recognizing the intimate relationship that Indigenous peoples have with the land. One challenge with land-based pedagogies is the role non-Indigenous peoples have in this approach to the decolonization of education. Our research, in a western Canadian context, explores this tension as we come to a deeper and shared understanding of our co-responsibility within Treaty 7 relationships. Learning from place emphasizes a relationship with the land (Blood & Chambers, 2006), something deeply respected in Indigenous communities and something absent from much of place-based education. Our project seeks to close this gap by considering varying perspectives of place as it informs STEAM teacher education pedagogy.

## Saturday Session I: 09:00-11:00

Room: *To be Announced in Final Schedule*

Session Topic: Intercultural Education: Identity, Language & Technology

Session Chair: *To be Announced in Final Schedule*

### 44204

#### **Identity Crossroads: Exploring the Impact of an Inner-City Community's Language Practices on Four Jamaican Boys' Gendered Identities and Academic Success**

Tanya Manning-Lewis, University of Victoria, Canada

For decades, one of the defining marks of Jamaican boys' gendered identities is their use of the native language, Jamaican Creole (JC), and rejection of Standard Jamaican English (SJE) which is often perceived as an effeminate language. While Jamaican Creole offers independence from coloniality, the boys' academic success is dependent on Standard Jamaican English, the only language of instruction in schools in Jamaica. This proposed study will investigate how attitudes towards English in a small inner-city community impact four Jamaican adolescent boys' perception of gendered self and ability to succeed in school. It will embrace a social constructivist approach, using a single case study design and narrative inquiry over a 4- week period. Through interviews, video diaries and graphic works, the study will document the boys (age 14-17) language experiences at home and in an urban school in Jamaica in order to assess the impact of predominant language attitudes. Preliminary results suggest some boys are taking agency of their language paths and success in school, while others tend to emulate the community's language practices (use of JC) to assert their gendered identities in order to feel a sense of belonging. The findings underscore the need to explore deeper understandings of the intersections of gender, class, familial language practices and attitudes in a society marred by language prejudice. The study aims to construct new knowledge to better assist families, policymakers and educators to develop more inclusive language practices that encourage success among young Jamaican boys and give them autonomy.

### 44406

#### **The Investment of Saudi Mothers in the US in Their Children's Arabic Heritage Language Learning**

Reem Al-Samiri, University of Kansas, United States

Many of the Saudi mothers living and studying in the US have children who grew up speaking English because it is the language of school, friends, and the world they know. However, these mothers recognize that the Arabic language is important for maintaining their children's cultural and religious identities, thus making Arabic a heritage language for these children. Through interviews, I follow six Saudi mothers in their changing understandings of their children's language needs and the challenges they face as parents of heritage learners. The findings show that the participants shift their perspectives on their children's language learning needs throughout their stay in the US, from an initial focus on English to an increasing awareness of the importance of the Arabic language for their children's future communities. Using Bourdieu's (1977) framework of capital, I find that these mothers are investing in their children's social, cultural, and academic capital. They are also investing in the imagined communities (Anderson, 1983) that they imagine their children being a part of. The study has implications for other heritage learners in the US and the challenges they face to maintain their language, as well as implications for educators of heritage learners from diverse backgrounds.

### 45130

#### **A Content Analysis of the Features and Links in English and Arabic Massive Open Online Courses (MOOCs)**

Khadijah Alghamdi, Indiana University Bloomington, United States

Due to the competitiveness among MOOCs platforms, each website is designed with the hope of attracting learners to it rather than other platforms. To explore the structure of different MOOCs and to address the differences between English and Arabic MOOCs, the five highest rated platforms were selected (Coursera, edX, Futurelearn, Rwaq, and Edraak). To analyze the platforms, feature and link analysis of course's webpages were conducted. For the feature analysis, 11 distinguishing features were defined to describe the structure of each platform. For link analysis, the measures that assessed the presence of inbound, outbound, internal-community, and external-community links are discussed first, followed by an analysis of the external links focusing on three variables: destination type, affiliation, and purpose. Two main points stand out in the analysis of the MOOC platforms' websites. First, all platforms share the same features, for instance, videos and discussion forums. However, particular features distinguish the platforms from each other, for instance, only edX has the notes feature. Also, English MOOCs provide supplementary reading materials, but Arabic MOOCs do not. Moreover, the number of courses offered by the English platforms is much greater and their content is richer than that of the Arabic MOOCs, so the English MOOCs websites are more expansive and the Arabic MOOCs websites are simpler. Second, MOOCs platforms have few outbound links and those they do have are generally used to advertise themselves on social media websites. In contrast, the much more extensive internal links are utilized to navigate within MOOCs courses.

**44235**

**The Use of Interactive Technology for Effective Teaching and Learning in Open Distance Learning Programmes**

Johan Redelinghuys, North-West University, South Africa

Anita Seugnet Blignaut, North-West University, South Africa

Emanuel Johannes Spamer, North-West University, South Africa

Various learning technologies for learning are used by Higher Education Institutions (HEIs) to deliver distance education programmes. Using technologies for learning in the delivery of distance education (DE) programmes enables students to access teaching, learning and resources. The purpose of this study is to investigate the use of learning technologies in developed and developing countries to foster interactivity and interactive technologies for effective student teaching and learning. The research question for this study was to identify which components a model would comprise to effectively integrate learning technologies into DE programmes at the Unit for Open Distance Learning (UODL) at the North-West University (NWU). The research design for this study comprised a multi-mode bounded case study (n=5), and a fully mixed equal status sequential multi-mode design and methodology was followed (n=795). Students enrolled for Education related DE programmes at the NWU participated in the study. The results of the data reflected that infrastructure, interactivity and Technology Enhanced Learning (TEL) had a definite influence on the degree of flexibility in the delivery of DE programmes. Flexibility in DE is improved when barriers are removed that influence access to resources, learning from anywhere and at any time. Improved flexibility will enable DE students to access academic and administrative support via various technologies available at a time convenient to them.

## Saturday Session I: 09:00-11:00

Room: *To be Announced in Final Schedule*

Session Topic: Interdisciplinary: Policy, Education & Environment

Session Chair: *To be Announced in Final Schedule*

### 43520

#### **Social Innovation Through Sustainable Initiatives: Renewing Value of Timber Waste Through Up-Cycling and Co-Creation with Mentally Disabled Rehabilitation Candidates**

Sonny Yip Hong Choy, Technological and Higher Education Institute of Hong Kong, Hong Kong

The project describes design students learning sustainability in a tertiary institute setting. A class was engaged in a live collaborative project with an NGO where they were asked to work with mentally disabled collaborators in designing, making and marketing of original upcycled products in Hong Kong. By understanding sustainable design and its importance for the future, design students apply principles learned and gained first-hand experience in seeing the potential of sustainable designs. The intention was to embed strong awareness of sustainability to all participants. Students, mentally disabled and their carers, wooden waste suppliers, as well as teaching staff were the main stakeholders in this project. Students explored ways in which design can create environmental, social and economic value for the NGO. The methodology used to assess project effectiveness involved making direct observations and post-project stakeholder interviews. These methods shed light on the appropriateness of project design, environmental, and economic outcomes of the project. Over the course of a 14 week semester, students learned how to conduct waste material exploration, co-design, iterative design, prototype testing, hands-on making and branding/marketing. Upon post project review, students felt achieving effective collaboration with mentally disabled was the biggest challenge, while embracing sustainable design principles through making upcycled products was considered a stimulating journey. Overall, they were able to answer project objectives and to achieve positive outcomes in this project.

### 44425

#### **Education for the Emerging Future**

Kendall Jane Clifton-short, The Purpose:Fully, Australia

Educational leaders need a framework to lead schools fearlessly into the uncertain, emerging future. In our rapidly changing world there is growing concern around the suitability of an industrial revolution based education model and debate around the keys to educating students for an unknown world. Many educators want change but feel confined by the existing system. The challenge for educational leaders is to look towards and lean into emerging future possibilities. To develop a pathway that rewrites the role of education and co-creates education systems that support and prepare students for an uncertain future. We explore the following structural elements that support this shift and provide a framework for every educator, student and parent to reshape education: Rethinking schools as businesses where client (student) engagement drives decision making; Embracing Purpose-Led leadership and aligning all aspects of education towards a purpose of educating students for an emerging future; Exploring the power of design to promote creative, individual experiences; Increasing engagement using experiential methodology centred around solving meaningful, real world problems; Using student-led project-based experiential learning to shift the focus from a knowledge-based curriculum to a skills-based curriculum and strengthen cross-curricular relationships; and reframing existing systems element – like standardised testing, to be opportunities to manage uncertainty, problem solve and fail forward, rather than summative evaluations to be prepared for and taught to

**44247**

**Waste Management Education and Its Impact on the Environment of the Kyrgyz Republic**

Ruslan Tashiev, The University of Tsukuba, Japan

Kenichi Matsui, The University of Tsukuba, Japan

In the Kyrgyz Republic, waste management has posed a great concern partly because of rapid urban population increase and poor waste management education. Past studies have shown that education for waste management can considerably contribute to reducing waste generation by inducing recycling. However, few studies have examined the link between environmental education at school and waste management in the Kyrgyz Republic. This paper argues that there is an urgent need to focus on waste management education among pupils and students in all levels of the education system. Therefore, the objective of this paper is to examine the level of awareness, knowledge and practices of students with regard to waste management at primary and secondary schools. To achieve this objective, the study conducted a questionnaire survey at these schools in Bishkek, the capital. The findings revealed that students from the sampled schools possessed inadequate knowledge and awareness about waste management. In addition, most of them were aware of waste problems within their school compounds but did not have sufficient knowledge about how these problems can be mitigated by, for example, sorting garbage. The study seeks to contribute to waste management policy improvement in the Bishkek area.

**45073**

**Secondary School Parents Feel in Community with Their Children's Schools When...**

Bonnie Stelmach, University of Alberta, Canada

Marcela Herrera-Farfan, University of Alberta, Canada

Parents are recognized as key educational stakeholders contributing to positive student outcomes. For decades educational researchers have been pursuing the question, how do you increase parent involvement in schools? With this question, educators and policymakers are curators of parent involvement, resulting in practices that tend to be school-centric (Lawson, 2003). Parents are commonly emphasized as partners in education; adages such as "it takes a whole village to raise a child" are invoked, but whether and/or how parents feel part of a school community is rarely interrogated. This research redirected the study of parents in schools from the typical question of "involvement" by asking, what makes parents feel in community in their children's schools? We focused on secondary school parents since research shows parents' involvement declines at this level (Epstein, 2001), and they feel displaced on the school landscape (Blinded, 2013). Based on semi-structured interviews with 18 parents of rural secondary schools and 13 parents of urban secondary schools in Alberta, Canada, we identified discourses that demonstrated parents' sense of community with, and sense of disconnection from, their children's secondary schools. Using Freeman's (2017) categorical thinking as an approach to analysis, data were viewed through four lenses as proposed by McMillan and Chavis (1986) in their sense of community theory: membership, influence, integration and fulfillment of needs, and shared emotional connection. This research advances the conversation about parents by injecting a conceptual focus on community, a term with current and universal appeal.



## Saturday Session I: 09:00-11:00

Room: *To be Announced in Final Schedule*

Session Topic: Climate Change

Session Chair: *To be Announced in Final Schedule*

### 44510

#### **Preference for Energy Sources of the Public: Focusing on the Comparison Between Residents Around the Nuclear Power Plants and Non-Residents**

Jaesun Wang, Honam University, South Korea

Min-Chang Lee, Chosun University, South Korea

In Korea, discussions are underway to seek alternative energy from the energy dependency centered on nuclear energy. The gradual shift from fossil fuels and nuclear power, which has been the largest source of energy in Korea to date, to renewable energy is at the heart of much controversy. However, effort to this change in energy policy has been decided by the perspective of the energy supplier such as the expert or the government, rather than the opinions of the people who are influenced by the policy. The current government (The President Moon's Administration) is making efforts to pursue changes in energy policy through the process of public consensus such as the Public Opinion Committee. The purpose of this study is to analyze the energy preference of the public and factors affecting preference. Recent studies, such as Yanga et al.(2016) and Greenberg(2009), also emphasize the importance of analyzing the preference of people for energy sources in the energy transition period. In particular, Greenberg (2009) suggests that there is a significant difference in energy source preference between residents around the nuclear facility and non-residents. This study is to investigate the differences of preference for energy sources between residents around the nuclear power plant and non-residents. And this paper will analyze the source of the difference of preference between two groups. In this study, we use survey data for South Korean for analysis.

### 42622

#### **Post-Project Sustainability: Case Study on Pakistan's Agricultural Investments and Services Projects After Natural Disasters**

Umer Saleem, University of Tsukuba, Japan

There are countless new social projects and programs realized worldwide every year. However, social programs that seem to be effective and needed at the time are designed; but do not last beyond the initial stage, disappointing the hopes placed in them and wasting the human and financial investments made in the projects. This study looks at the sustainability of agricultural project implemented in 2010-2011 after natural disasters, under the titled "Agricultural Investments and Services Project (AISP) in Pakistan. This research try to answer the questions as, are the AISP project sustainable, to what extent do AISP project continue after donor funding stop? What are the main factors that affected the achievement of sustainability of these projects? Primary data was acquired during fieldwork in Vihari district conducted in August 2017 for the study. Interviews were done as semi-structured interviews which took over the course of three weeks. For analyzing and evaluating sustainability of these projects, rural development outcome criteria was used which allowed us to see the three dimensions as economic, socio-political and ecological, as well as allowed us to exam these projects if they are viable or not. Analysis showed that after donor funding ended, the activities continued mainly because they were owned by the state, governmental institutions both at local and national level were actively involved in its implementation. The AISP were to foster, and integrate, environmentally sustainable projects, by devolving responsibility to the local level and applying a community-based approach for their management.



**44507**

**Renewable Energy in Small Island Developing States: Energy Transition in the South Pacific**

Harrie Vredenburg, University of Calgary, Canada

With the 2015 Paris Agreement nations around the world agreed to address climate change by focusing on the global energy transition to lower carbon including increasing renewable energy generation and transition to electric vehicles fueled from renewable sources. My presentation reports on the extension of my earlier Caribbean research to the South Pacific (Fiji, Tonga, Cook Islands, Hawaii and New Zealand). Small island developing states are the first to be existentially impacted by climate change through increasing frequency and severity of tropical storms, shoreline erosion and bleaching of ecologically and economically (ie tourism) important coral reefs. Yet these island states have to date continued to be dependent on imported diesel fuel for electricity generation while renewable electricity costs have come down dramatically and are in most cases cheaper than fossil fuels in these islands in the long run. My research explores the factors that have prevented renewables from more quickly becoming established in these states and how these factors may now be changing. These islands are also becoming field laboratories for closed energy systems with high levels of renewable electricity. Dealing innovatively with renewable power intermittency with state-of-the-art batteries, generation complementarity (solar, wind and seawater cooling systems) and total reliance on renewables are all examined. What we learn on these islands is helpful to the world's islands and will also be useful beyond islands as the world transitions to more and higher proportion of electricity from renewable electricity generation and more cars that are electric.

**44357**

**Climate Change Law: Limitations of the Legal System to Respond to the Threats**

Celeste Hammond, John Marshall Law School, United States

From clean air regulations that affect cars and the transportation industry to government subsidies/incentives for renewable energy (solar & wind) to protecting the first amendment rights of scientists and journalists who maintain that climate change really exists and is caused by human activity, the American legal system is an integral part of the response to climate change and the public policy of sustainability and resilience. The importance of legal rules to deal with the threats posed by Climate Change cannot be overstated. At the federal, state and local levels of government regulations reducing air pollution and controlling energy that increases greenhouse gases, taxes on emissions, required insurance on flooding hazards and the like have been enacted to deal with Climate Change by reducing the causes and by adapting to reduce the physical risks to promote resilience. Yet, the U.S. legal systems has limitations that affect the impact. Legislation requires a political situation supporting regulation of the causes of climate change, financial support for alternative fuels and the will to develop and get laws passed that will be effective and acceptable to political bodies. Litigation is a slow process and the law created by the courts may be narrow and not comprehensive. In a capitalist environment the response of business may be critical both because of the severe limits of the legal system and because government alone cannot work to meet the basic goals of dealing with the threats of climate change.

## Saturday Session I: 11:15-12:15

Room: *To be Announced in Final Schedule*

Workshop Presentation

**44442**

### **The Opportunity Myth: What Can 4000 Students Teach Us About School?**

Nick Denton-Brown, The New Teacher Project, United States

TNTP's national reports – from *The Widget Effect* to *The Mirage* – have had a significant influence on educational policy and practice. Come hear about *The Opportunity Myth*, TNTP's next national report, where you'll discover what TNTP learned after spending a year in schools around the country – observing more than 1,000 hours of instruction, rating the quality of more than 5,500 assignments, and gathering more than 28,000 in-the-moment student surveys. You'll learn more about the quality of students' daily academic experiences, how students themselves perceive those experiences, and how we can continuously improve the quality of those experiences. Initially, participants will be briefed on the findings from *The Opportunity Myth* and will learn about the four key resources TNTP found lead to better academic outcomes in school. Participants will have the opportunity to ask questions about the report's findings. Following this, participants will discuss how the national report findings apply to their own classroom(s) and school(s). They will engage in a school-level case study using actual student assignments, student survey results, and data from observations to build a plan to improve a school. During this case study, participants will work as a team at their tables so that they can benefit from their colleagues' ideas. Finally, participants will build a plan to diagnose the quality of their own students' daily academic experiences.

## Saturday Session I: 11:15-12:15

Room: *To be Announced in Final Schedule*

Workshop Presentation

**44373**

### **Enhancing Assessment Feedback in Higher Education: An Inclusive and Integrative Approach**

Carol Evans, University of Southampton, United Kingdom

Michael Waring, Loughborough University, United Kingdom

Enhancing assessment feedback practices remains a fundamental concern for higher education institutions (HEIs) globally. Translating research into effective practices to support the self-regulation of learners should be a priority, with assessment acting as the driver for curriculum change (Evans, 2013, 2016). Translating what we know from assessment research into efficacious assessment practices remains problematic. The EAT Framework tackles this disconnect by utilising the highest quality of research and translating this into a pragmatic approach with evidence of institution-wide gains in student satisfaction with assessment. In this workshop the EAT Assessment Feedback Framework will be outlined highlighting the importance of student and lecturer beliefs and values about assessment. The Framework is the result of extensive research on assessment feedback utilising systematic reviews of assessment feedback (2010-2018) across domains, to include individual differences in learning, educational and cognitive psychology, and neuroscience research. The Framework, underpinned by constructivist, socio-cultural, and socio-critical perspectives, enables learners (staff and students) to explore assessment literacy, feedback, and assessment design as part of an integrated and holistic model. Fundamentally, the Framework promotes student engagement with, and ownership of assessment. Participants will have the opportunity to explore principles underpinning assessment practices, and through use of the Framework and associated tools, consider how to apply the concepts to their own context. The Framework can be applied at individual, discipline, faculty, and institutional levels. Models used to scale up the Framework within and across institutions drawing on current funded research application experiences will also be demonstrated along with exploration of meaningful impact.

## Saturday Session I: 11:15-12:15

Room: *To be Announced in Final Schedule*

Workshop Presentation

**43330**

**I See You**

**Rachel Elphick, AFL Cape York House/Education, Queensland, Australia**

Nathaniel Tamwoy, The University of Sydney, Australia

Australia's Indigenous students belong to the oldest living culture in the world. Connection to country, community and culture provides great strength to the development of autonomous and successful people. For too long there has been disconnect between Indigenous education policy and the academic achievement of Indigenous students. Deficit language, poor implementation of policy and a lack of understanding about the roles that relationships play in the development of the whole person have meant that many opportunities have been missed by government and non-government agencies to build on these strengths. In education systems that are hierarchical and focussed on relationships that are traditionally about power and influence, how do teachers and schools create environments that enable Indigenous students to thrive? Relationships of strength can only be formed when the adults can de-role and get to know themselves, know their schools and know the child. A partnership of love and trust needs to be created so that the shared knowledge becomes the instrument of power and both child and adult can expect the best of each other. Nathaniel Tamwoy, an Argun man from Badu Island in the Torres Strait, graduate of AFL Cape York House and current student at the University of Sydney and Rachel Elphick, Education Manager at AFL Cape York House enlighten delegates to the barriers between the "traditional" teacher and learner. Having worked together for 6 years, they provide strategies and insights into creating relationships that strive for excellence and respect, where both parties are teacher and learner at the same time.

## Saturday Session I: 11:15-12:15

Room: *To be Announced in Final Schedule*

Workshop Presentation

**45112**

### **Va'atele: Creating Bilingual, Biliteracy and Translanguaging Opportunities with New Zealand Pacific Learners**

Rae Si'ilata, The University of Auckland, New Zealand

This presentation will share findings from the Pasifika Early Literacy Project, a New Zealand Ministry of Education contract designed to enable NZ Pacific learners to utilise their linguistic and cultural resources at school through utilization of Pacific dual language books. It will provide examples from teachers in English-medium classrooms who having participated in the professional learning and development (PLD) workshops, learnt how to teach for transfer in what traditionally had been monolingual classroom spaces. Through their changed beliefs and practices, they enabled young Pacific children to utilise translanguaging to support their development and progress in speaking, reading and writing at school. The initial research questions were: 'What does effective facilitation focused on the development of linguistically and culturally sustaining pedagogies look like?' And, 'How do teachers who are not Pacific themselves, transfer knowledge from PLD workshops into their everyday classroom practice to enable Pacific bilingual children to utilise their language resources?' The study investigated the practices of an effective facilitator who supported and enabled teachers to change their practice, resulting in significant impact on children and their families. Examples of facilitator, teacher and student talk will illustrate the catalysing power of changed teacher mindsets on Pacific bilingual children's experiences of schooling. The utilization of Pacific dual language books as mirrors into the worlds of Pacific children and as windows into other worlds will illustrate the power of making connections with Pacific children's funds of knowledge, to facilitate decolonising classroom spaces and the normalising of multilingual classrooms.

Saturday Session I: 11:15-12:15

Room: *To be Announced in Final Schedule*

Workshop Presentation

**45081**

**Awaken the Spirit: Fostering Awareness of Cultural Proficiency to Strengthen Indigenous Identities**

Holly Linski, University College of the North, Canada

It is becoming increasingly evident that Canada's Indigenous students are falling through the cracks as they face a myriad of problems in academic and socio-economic settings. Throughout the years, academic and social problems have intertwined and interweaved to inhibit Indigenous people from prospering and flourishing as economical equals in an adverse society. The deficiencies felt by Indigenous students today could be attributed to the era of residential schools, which left behind a legacy of trauma that is still felt by Indigenous and non-Indigenous Canadians today. The damage caused by generations of loss cannot be fully restored; however the residual impacts may be alleviated through restitution aimed at the current and future generations of Indigenous students. This interactive workshop will provide educational stakeholders with qualitative and quantitative research methods, effective strategies and techniques, and confidence and motivation to aid Indigenous students in their quest for personal identity and restored value in society. In the words of Canadian Senator Murray Sinclair during his role as Chairman of the Indian Residential Schools Truth and Reconciliation Commission: 'Education got us into this mess and education will get us out.'

## Saturday Session I: 11:15-12:15

Room: *To be Announced in Final Schedule*

Workshop Presentation

**44441**

### **Building Powerful Classrooms for English Language Learners Through Culturally Responsive Family Engagement**

Nichole Cooley, The New Teacher Project, United States

Atyani Howard, The New Teacher Project, United States

Developing powerful home-to-school partnerships with the families of English Language Learners helps ensure that families have the resources they need to be strong advocates for their children and to support learning at home, particularly in the realm of literacy. Participants will receive concrete guidance for how to assess the effectiveness and responsiveness of current engagement efforts and improve the integration of family engagement to strengthen their literacy program. The session will begin with an overview of the research that shows how integrating family and community engagement efforts can strengthen the instructional program at the district, school and classroom levels to lead to positive results for ELLs. Participants will have the opportunity to place this research into context by exploring the case study of Camino Nuevo Charter Academy. This case study will illustrate how the teachers and staff at Camino Nuevo engaged students' families as part of their academic approach and describe the positive results in students' language acquisition and overall achievement. From there, participants will conduct a self-assessment of their own district or school and work in small groups to explore successes and challenges of engaging families and communities towards increased student learning. Through that discussion, participants will surface the knowledge and skills their staff need to better engage ELL students' families to accelerate student learning. Participants will end the session by identifying professional learning opportunities that may address those knowledge and skill gaps.



## Saturday Session I: 11:15-12:15

Room: *To be Announced in Final Schedule*

Workshop Presentation

**44956**

### **Documentary Activism: How to Launch a Social Justice Film Festival and Outreach Program**

Greg Chan, Kwantlen Polytechnic University, Canada

As educators, how can we cultivate sites for speaking truth to power that extend beyond our classrooms? Focusing on KDocs Documentary Film Festival and its Outreach Program based at Kwantlen Polytechnic University in Vancouver, Canada, this workshop will explore possibilities for establishing a film festival (or special screenings) plus community outreach activities (town halls, doc-making workshops). We will consider best practices and lesson learned from KDocs, which began in 2012 as a special screening of Siebel Newsom's "Miss Representation," an event that featured Margaret Atwood as its keynote speaker, and has since grown to a 4-day film festival in 2018 that welcomed over 1,500 guests, 15 keynote speakers, and 37 panelists. The workshop will allow us to: Identify social justice issues most relevant to our students, colleagues, and institution; Craft a mandate and mission statement for a starter film festival; Determine recruitment strategies for keynote speakers and panelists; Explore partnership opportunities across the disciplines/in the community; and Map out an initial plan for funding and sustainability. As Paulo Freire says, "I engage in dialogue because I recognize the social and not merely the individualistic character of the process of knowing. In this sense, dialogue presents itself as an indispensable component of the process of both learning and knowing." Join us to discover how documentary activism can be the catalyst for Freire's dialogue -- dialogue that has the power to engage us in critical thinking and understanding about ourselves, our communities, and our world.

## Saturday Session III: 13:15-14:45

Room: *To be Announced in Final Schedule*

Session Topic: Higher Education

Session Chair: *To be Announced in Final Schedule*

**45059**

### **Activating Autonomy**

Zoe Jenkins, Kansai Gaidai University, Japan

Students from heavily teacher-centered educational backgrounds, or from cultural backgrounds that discourage students from expressing opinions or drawing attention to themselves often do not cope well in classes requiring active participation, critical thinking and the ability to be autonomous. This can be frustrating and present serious problems for both students and teachers alike. In this presentation, the speaker will introduce a teaching method which flips the passive student/active teacher roles that this type of student is used to, creating a classroom where the students need to take responsibility for themselves, work through problems on their own, and actively communicate with peers. The speaker will explain how and why this method has been successful for her and her colleagues in promoting ongoing student autonomy at her Japanese university. She will also briefly explain the origin and theory behind the method; introduce its key points; give specific examples of successful lesson plans and instructions; and explain some of its limitations. Participants will leave with the skills and knowledge to be able to practice this teaching method in their own classrooms.

**44350**

### **Effects of Reflective Practices on Self-Directed Learning Competency in a Korean University Pre-Service Teachers' Course**

Hyunkyung Lee, Hankuk University of Foreign Studies, South Korea  
Carolyn Mori, Tokyo International University, Japan

Self-directed learning (SDL) is the central theme of adult education. Teachers, in particular, need to have SDL competency to acquire the necessary knowledge and skills for themselves when they begin teaching. While SDL has been demonstrated to support students' learning in higher education, little is known about reflective practices' effectiveness for SDL in pre-service teachers' classes. It is crucial for pre-service teachers to experience SDL first hand in their own learning in order to become effective practitioners. This study investigates the effects of using reflective practices on students' SDL competency in a university pre-service teachers' course. The reflective practices are measured by three variables: self-reflection, peer-feedback, and collaboration. Based on the 28-item SDL Competency Scale, an online survey was given to students who have taken a pre-service teacher course titled 'Instructional Methods and Technology' in Korea. A total of 64 students participated in the survey and a multiple regression analysis method was used to analyze the data. The results of the study present not only if and how the use of reflective practices improve students' SDL competency but what specific reflective practices affect students' SDL competency in the university pre-service teachers' course.

**45084**

### **Learner Autonomy and the New Dawn of Education**

Ljiljana Markovic, University of Belgrade, Serbia  
Biljana Djoric Francuski, University of Belgrade, Serbia

Learner Autonomy, an ancient teaching paradigm dating back to Chu Hsi (12th century), defined and codified in the pedagogies of the 1970's by Henri Holec and in the 1990's by David Little, has flourished in the 2010's in an unprecedented way. The Web2 technologies have finally made the ancient dream of all good teachers and dedicated learners come true. The custom-tailored teaching pedagogies, which had been the privilege of the elite universities, can now be the reality of teaching the large classes, by making use of the hitherto unimaginable possibilities offered by blended or distance-learning environments. What had been attainable in individual teaching methodologies, has now become transferable to large audiences, dispersed often over huge learning spaces, bridged by distance-learning techniques. We conducted a Case Study of the effectiveness of placing teaching contents on the Moodle Platforms for each subject taught in the Japanese Studies Major, for groups of 63 students which we are accredited for, and researched the effectiveness of thus enabled blended teaching. We also examined the relationship of learner independence and interdependence within the student teams who used the resources posted on Moodle Platform Subject Group Spaces and worked towards producing their Seminar Papers in teams of three. The teacher support was tailored to suit the needs of their chosen research task, as well as to guide them in reaching the learning goals of their research interest.

### Saturday Session III: 13:15-14:45

Room: *To be Announced in Final Schedule*

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

Session Chair: *To be Announced in Final Schedule*

#### 45215

##### **Narrative of Two Indonesian Migrant Workers in Singapore: Education Gives My Dignity Back**

Dewi Setiani, University of Hawaii – Manoa, United States

Migrant workers play important roles in the global economy. Besides contributing to their home countries through remittance, the workers are fulfilling the jobs that cannot be fulfilled by existing workforce in the host countries, for example, domestic workers. Increasing numbers of women in the First World countries are participating in the formal economic sector, leaving behind domestic jobs that were perceived as women's traditional tasks. It creates opportunities for foreign women to fulfill the needs of domestic workers. However, migrating to foreign countries comes with a lot of risks, especially for domestic workers. Working in private homes put women, who are often coming from poor and uneducated backgrounds, become vulnerable to abuse and human rights violations. My research will discuss about the experience of two Indonesian foreign domestic workers in Singapore who enroll in education programs provided by Indonesian Embassy. The methodology for this study is qualitative and participants are recruited with snowball sampling. This study is a part of my work-in-progress MA thesis that recruited 15 participants. The first participant is a woman who enroll in high school equivalent program. And the second participant is a woman pursuing undergraduate program at the school. My research reflects that continuing education gives value to the participants' personal and professional life. One of the participants mentioned that education gives her dignity back because she feels that people are often downgrading her because of her job. The other one shares that pursuing education gives her broader opportunities as she is not planning to work as maid forever. The two participants might not represent all Indonesian migrant workers; however, their narratives could represent of the challenges of foreign domestic workers and how they overcome their issues. Further researches need to explore deeper about educational options for the workers in order to provide a better education system for the workers. Migrating to foreign countries are often perceived as better choices for unskilled and uneducated workforce. Hence, researching the experiences of domestic workers are important to provide different perspectives of immigrant workers' lives. It provides more information for educators and policy makers to improve the life quality of foreign domestic workers.

#### 44384

##### **Reconciliation in Research Through Collaborative Knowledge Mobilization with Indigenous Elders**

Andrea Kennedy, Mount Royal University, Canada

Katharine McGowan, Mount Royal University, Canada

Doreen Spence, Mount Royal University, Canada

Roy Bear Chief, Mount Royal University, Canada

Jillian Bear Chief, Mount Royal University, Canada

Background: Using grounded theory methodology, we studied barriers and facilitators to implementing Truth and Reconciliation Commission [TRC] of Canada (2015) Calls to Action with university faculty. The main concern was the social process of dominionization: ownership of expertise, animated as academics design and defend their own expertise. When challenged to incorporate TRC Calls to Action, tensions occurred when including or excluding Indigenous Knowledge from expertise. Results show opportunities for caretaking knowledge and positive change in the academy. Purpose: The main objective is to co-produce

knowledge to uptake TRC Calls to Action. Initial knowledge translation was limited to reporting findings through meetings and publications. However, in collaboration with Indigenous Elders, we realized the need to align reporting with reconciliation through collaborative Knowledge Mobilization (KMb) and social innovation. Method: KMb strategy is a 'reciprocal and complementary flow and uptake of research knowledge' (SSHRC, 2016). Capacity for action is supported through iterative social innovation process of prompts, solutions, prototypes, sustaining, scaling & diffusion, and system-level change (Murray, Caulier-Grice & Mulgan, 2010). Activities include talking circles and developing learning frameworks and Indigenous art-based educational resources. Key impact indicators include mapping networks and identifying progress markers on uptake of Calls to Action. Findings: Preliminary KMb evaluation findings will be shared. Indigenous Elders continue to share guidance, including Seven Sacred Teachings (Cree Elder Doreen Spence, gifted by Anishinaabe Elder Dave Courchene) and Kimma Pi Pitsin- kindness & compassion teachings (Blackfoot Elder Roy Bear Chief, artwork gifted by daughter Jillian Bear Chief).

**44436**

**Art and the Voices Within: Looking at Hawaiian Native and Indigenous Women's Arts Through Storytelling**

Renuka de Silva, University of North Dakota, United States

Human beings live and tell stories for many reasons, and it is a way to understand one another and to give a time and place to events and experiences. Therefore, a narrational approach within the context of this research offers a frame of reference and a way to reflect during the entire process of gathering data and writing. This empirical study examines the importance of storytelling among Native and Indigenous women of Hawaii and their interconnectedness to land and spirituality through accessing [k]new knowledge. This empirical study examines storytelling in contemporary Hawaii through the visual medium. The researcher immersed herself in making and discussing artwork with Native and Indigenous women in artmaking. Using a narrational approach combined with portraiture methodology with its five analytic methods this body of work draws broader parallels through the lenses of intersubjectivity and feminism, to understand the implications of marginalization and how women's voices are drawn through the arts to redefine positionality of the Native and Indigenous Women of Hawaii. Findings indicate that despite forced cultural and political changes over time, these women's innate beliefs and interconnectedness to land and spirituality has begun to reshape in multidimensional ways both culturally and ecologically. In the spirit of Independence and Interdependence, these women not only feel directly tied to a generational spiritual base that governed them, but they also feel that 'dimensions of traditional knowledge are not local knowledge, but knowledge of the universal as expressed in the local.'

## Saturday Session III: 13:15-14:45

Room: *To be Announced in Final Schedule*

Session Topic: Teaching Experiences, Pedagogy, Practice & Praxis

Session Chair: *To be Announced in Final Schedule*

### 44250

#### **Listening While Reading: Developing Listening Comprehension of High-Performing Grade 2 Students Through Audiobooks**

Anne Marie Felias, Miriam College, The Philippines

Listening serves as one of the essential language skills in information exchange. With today's developments in technology, new approaches and materials should be fabricated in order to develop learners' listening skills. Various researches found out that assisted reading with audio recordings is an effective instructional intervention. This study aims to hypothesize that there is a significant difference between the test score means of students who developed listening comprehension after utilizing audio book with story text and of those who do not. A quantitative research was utilized in the study. An experimental design was also applied which required the participants to undergo a 3-week long study, within a one (1) hour schedule. Participants were divided into two groups: control and experimental. The control group used an audiobook to develop their listening comprehension while the experimental group maximized the use of audiobook with story text. The data were obtained using the pre- and post-test. Results of the Mann-Whitney U test for the participants' listening comprehension tests revealed that there is no significant difference (at  $\hat{1}\pm=0.05$ ,  $z=0.18464$ ) between the test mean scores of the two groups. Same results were gained using the Wilcoxon Signed Rank test when pre- and post-test results of the experimental group were compared (at  $\hat{1}\pm=0.05$ ,  $W=8.5$ ). On the contrary, it was found out that there is a statistical difference in the result of the pre- and post-test of the control group ( $\hat{1}\pm=0.05$ ,  $W=5$ ).

### 44430

#### **How Can We Encourage Students to "Interact" and "Produce" In English Classes?: Voices of Japanese EFL Teachers**

Maki Ikoma, Ritsumeikan University, Japan

The newly revised Course of Study for high school English education in Japan (MEXT, 2018) demonstrates the importance of fostering students' productive skills. Students will be expected to 'interact' and 'produce' in English by engaging in a variety of oral communication activities such as speech, presentation, debate and discussion. However, as great emphasis has long been placed on receptive skills in Japanese English education, the majority of high school EFL teachers lack experience in employing such oral communication activities (Benesse Educational Research and Development Institute, 2016). This qualitative study, therefore, aimed to investigate the teaching strategies utilized and explored by Japanese EFL teachers who have experience in teaching EFL courses focusing on such activities (e.g. presentation, discussion). In particular, it attempted to examine the difficulties they encountered and the strategies they used and explored in encouraging their students to 'interact' and 'produce' in English through such activities. In order to collect data, semi-structured interviews were conducted with five Japanese EFL teachers. Findings indicated that several serious obstacles tend to exist when implementing such activities in Japanese EFL context, including students' silence, speech anxiety, low motivation to speak English, unequal participation, and poor achievement. In order to overcome such obstacles and support students' learning, it was suggested that building rapport with students, praising students' efforts to communicate through English, designing activities flexibly, and providing clear learning goals and instructions are considered particularly crucial as they help promote students' engagement with oral communication.

**43129**

**Practicum Host Teachers in Language Teacher Training: Effects of the Hosting Experience**

David Wood, Carleton University, Canada

In Canada, practicums in programs geared toward teaching English as a second language (TESL) are mandated by the professional associations TESL Ontario and TESL Canada. Research indicates that practicums help student teachers, but there has been little effort to investigate how host teachers may benefit. In this study nine TESL host teachers were engaged in semi structured interviews to answer two questions: 1) How do TESL practicum host teachers perceive the hosting process? 2) Do TESL practicum host teachers use the hosting process to reflect on their own practice, and if so, how? Results indicate that host teachers feel that the experience leads them to think more carefully about their motivations and practice, they feel the need to show their best work, it encourages them to be self aware and critical as they verbalize their planning processes. More experienced teachers tended to focus more on practical day to day classroom practice, and the less experienced teachers tending to focus more on reflecting and collaborating.



## Saturday Session III: 13:15-14:45

Room: *To be Announced in Final Schedule*

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

Session Chair: *To be Announced in Final Schedule*

### **44820**

#### **Recovery-Stress Level and Mood in High Performance Collegiate Athletes**

Emarely Rosa-Davila, Texas Woman's University, United States

This study will investigate the level of stress-recovery and moods of a sample of high-level university athletes, in order to determine the psychological factors that play an important role in the development of the athlete. This study is important, because when the athlete fails to reach the ideal state of performance, known as activation, can be affected. This may be related to over-training, fatigue and/or exhaustion. These factors, in athletes, have been classically related to moods. The design of this study is quantitative. Participants will be a sample of highly competitive athletes who are university students currently competing in the National Collegiate Athletic Association (NCAA). The instruments to be used will be the Recovery and Stress Questionnaire for Athletes (RESTQ-Sport) and the Scale of Moods (POMS). The analysis of the data will be done using descriptive and inferential statistics through the programmed SPSS.

### **44012**

#### **Commit to Be Fit: A Three-Pronged Approach to Creating a Culture of Wellness**

Hollyann Jenkins, Rappahannock County Public Schools, United States

Commit to Be Fit is an award winning, grant funded, school supported program in a rural Virginia county that is geared towards creating a healthier culture in three key areas: cafeteria, classroom, and the community. Realizing that academic performance is strongly correlated to healthy minds and bodies, wellness and healthy lifestyles have become an integral part of our educational culture. The Commit to Be Fit program was presented an award by Governor McAuliffe as the recipient of the 2017 Virginia School Board Association's Food for Thought Competition for wellness/physical activity. Nutrition: Attendees will learn how Commit to Be Fit provided healthier food options within the school cafeterias, while promoting nutrition education for students, parents, and community members. Classroom: Attendees will hear the success that we have experienced in promoting movement opportunities within the schools. A few of the highlights that will be shared include our elementary school Brain STAR (Strengthening through Action Repetition) learning lab, high school alternative seating classroom, classroom kinesthetic corners, Brain STAR brain break database for educators, and more! Community: Attendees will gain insight on to how to inspire and motivate employees and community members to become actively engaged in a healthier lifestyle. Special attention will be focused on contests, challenges, workshops, and family events. Gather ideas on how to generate enthusiasm, create awareness and buy-in, and begin a community wide, culture shift that embraces health and wellness.

### **43487**

#### **Experiences of OFW Children Studying at Trinity University of Asia: Perspective-Referenced-Based Framework for Program Enrichment**

Juliet Bucoy, Trinity University of Asia, The Philippines

Elena Catalo, Trinity University of Asia, The Philippines

Wilma Tomas, Trinity University of Asia, The Philippines

This research are experiences of sixteen (16) children of Overseas Filipino Worker (OFW) studying at Trinity University of Asia. The Phenomenological approach was utilized to determine the essence of the experiences of OFW children resulting to six shared themes drawn from the connection and interlace of the individual themes: Separation is a Difficult Process, Parental Love by 'Proxy', Life is a Kaleidoscope, Pain Management, Chasing Growth and Maturity, and Cry for Support. This study are the OFW children's narratives that voiced out the cry for a felt need which they could not express in words nor articulate in a manner one can understand. The children claimed that they were able to survive without their parents. They were able to cope emotionally and physically and accepted that their situation is an inevitable reality. However, there exists a need aggravating their being which has to be satisfied. The shared stories informed the readers there is a missing element which has been torn or broken which the children felt has to be satisfied. The OFW children never blamed their parents but this process of being 'parents' to themselves has left a parcel of emptiness in their being. The results of the study led to the crafting of the Perspective-Reference-Based-Framework for Program Enrichment for OFW children. The intention of the framework will serve as a guide that will help the OFW children with grateful depth of courage so that they can better understand the situation surrounding them.

## Saturday Session III: 13:15-14:45

Room: *To be Announced in Final Schedule*

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

Session Chair: *To be Announced in Final Schedule*

**44528**

### **Foreign Language Education for Intercultural Citizens in a Global Era: What Chinese Teachers Say and What They Do?**

David Geng Zhang, Hong Kong University, Hong Kong

In order to make educational responses to globalisation, English language education is necessary to be located in a wider purpose, shifting from a focus on language skills, to a vision of intercultural understanding, and to a broader perspective of developing intercultural citizenship. Taking this perspective, this study aims to investigate the FL (foreign language) teachers' cognition and practice of developing citizenship. To this end, this study firstly explores teachers' understanding of a "good citizen". On this basis, their beliefs on the role of FL in developing citizenship are examined, which followed by a sustained observation of their classroom practice of teaching citizenship. From there the study moves to consider the relationship between the teachers' cognition (including their understanding of a good citizen and their beliefs about the role of FL in developing citizenship) and their classroom practice. Through analysing the interview data and the observation data collected from six EFL (English as a foreign language) teachers in one China's university, this study finds; 1) concept of citizenship in the context of China is more concerned with morality, and 2) FL teaching contributes to citizenship development by emphasising more virtue than intercultural understanding, which is seen in both the teachers' beliefs and classroom practice. This study extends current theories of citizenship education by contextualising concept of citizenship and illustrating the contribution of FL to the development of the contextualised citizenship. It also explores the pedagogical implications of intercultural teaching and provides insights for FL teacher development.

**44669**

### **International Students: A Valuable Resource for Authentic English Language Practice**

Regan Tyndall, Sophia University, Japan

With Japan as an example, this paper will argue that international students, as a consequence of government initiatives for globalizing "expanding circle" nations' universities, represent an opportunity to give local students and international students authentic English-as-an-international-language (EIL) practice. The current context of English dialog between Japanese students and international students will be analyzed partly through interviews with staff from four different Japanese universities, and through a sample of Japanese university students' own opinions and impressions of English-practice with international students who are 'non-native English speakers' (NNEs). I will posit, supported by consideration of expanding countries' futures in international matters, linguistic and language-learning theory, and the perspective of English expanding circle countries' overcoming English "nativism", that properly organized English-language dialog between students of different first languages is an authentic, valuable, and practical pursuit for universities. In addition to preparing students for possible future English dialog with other NNEs, the ideal result is that university students, whether native or non-native English speakers, local or international, will come to understand English as serving the function of an international language. Finally, I will suggest some practical ways of employing international students for English practice at various types of universities.

**44833**

**The Centrality of Language Objectives for Engaging English Language Learners in Academic Content: Challenges and Opportunities for ESOL Teacher Trainers**

Lizette Peter, University of Kansas, United States

Recent research into teachers' ability to accommodate the linguistic needs of English learners (ELs) within regular content instruction suggests myriad challenges in lesson planning, instruction, and assessment. In particular, developing clear and measurable language objectives that derive from a teacher's content objectives and instructional plan can be especially difficult for teachers whose own understanding of the structure of English and second language acquisition processes is introductory. And yet, research also indicates the centrality of language objectives for effectively engaging ELs in academic content, and that the ability to plan content and language integrated lessons is one of the most valuable tools teachers of ELs can possess. In this presentation, I report on my systematic attempts as an ESOL teacher educator to facilitate pre-service and in-service teachers' understanding of the importance of language objectives, as well as the experiences of my students in applying the principles of SDAIE (Specially Designed Academic Instruction in English) in establishing measurable content and language targets for ELs. Through an examination of their SDAIE lesson plans, I explore how teachers integrate new understandings of English language functions, forms, and vocabulary, as they relate to academic content. The findings shed light on the sources of teachers' confusion and frustration and offer concrete solutions to better equip teachers to meet the linguistic needs of their students.

## Saturday Session III: 13:15-14:45

Room: *To be Announced in Final Schedule*

Session Topic: Health & Wellbeing

Session Chair: *To be Announced in Final Schedule*

**44773**

### **The Value of Motivational Theory to Influence Active Transport Behaviors: A Swedish Example**

Karin Weman Josefsson, Halmstad University, Sweden

Jenny Back, Halmstad University, Sweden

Cycle commuting has been shown to promote major health effects, studies showing as much as 41% lower overall mortality compared to car or collective transport (Celis-Morales et al 2017). Yet, for many of us, there are significant behavioral barriers in changing transport behavior. On the positive note, studies have shown that bikes providing electric assistance when pedaling (pedelecs) also have positive effects on cardiovascular health and helps people meet physical activity recommendations. It is possible that pedelecs could facilitate active transport by reducing some perceived behavioral barriers by enhancing autonomous motivation in line with self-determination theory. The overall purpose was to examine underlying motives for using the pedelec above passive transport (car, bus). Semi-structured interviews (N=14) were used to study motivational aspects of participation in a community-based pedelec project. Qualitative content analysis revealed motives to choose the pedelec was health reasons (regular exercise), economic reasons (e.g. avoid having two cars), environmental reasons (to reduce environmental impact) and personal values (e.g. related to exercise identity). These four motivational themes can be related to the significance of autonomous motivation for behavioral regulation. The step from passive to active transport might be challenging, but the use of pedelecs and appropriate communication policy might facilitate such a transition. Application of self-determination theory and addressing the motivational themes found in this study could shed some light on motivational drives for active transport and inform community interventions and policies design to adopt sustainable transport behaviors.

**45085**

### **A Study on the Social Solidarity and Emotional Energy of Young Gamers**

HyeYeong Gim, Kangwon National University, South Korea

SeoungHo Ryu, Kangwon National University, South Korea

Games occupy an important position in the recreational culture of Korean youth. However, game-related studies and policies in Korea have focused on the adverse effect or problematic behavior of games. This study intends to recognize situations in which games, the main recreational activities and culture of the youth, generate social interaction, and to then review the social solidarity and emotional energy experienced by the youth concerning the interaction ritual argued by Randall Collins(2004). A total of 26 (19 male, 7 female) adolescents were interviewed 10 times. The result of the study displayed that the adolescents formed social solidarity and obtained emotional energy by enjoying games in the same space, such as a PC room, and independently formed ethics and regulations while also creating symbols, such as levels and characters. Particularly those with high emotional energy displayed confidence, passion, and positive senses of self, and displayed 1) Immersion : group competition, 2) healing : stress relief, and 3) creation : symbol or secondary creation. On the contrary, those with low emotional energy displayed low confidence and a loss of solidarity. This situation was displayed as 1) violation : swearing/rudeness, 2) hate : female/generational hate, and 3) cursing : family conflict. Through this study, it was concluded that games performed the role of forming a social life for the youth as a stage of manifesting social solidarity and emotional energy. From

point of view, there is a need for the institutional supplementation of the policies for the youth and further education in game literacy.

**44381**

**Not Your Local Food Bank: A Food Rescue Program for Migrant Women and Their Families**

Maria Mayan, University of Alberta, Canada

Sandra Ngo, University of Alberta, Canada

Dragana Misita, University of Alberta, Canada

Maira Quintanilha, University of Alberta, Canada

Rhonda Bell, University of Alberta, Canada

Through a maternal health research program, we sought to improve nutrition among migrant women living in difficult circumstances and receiving services from a Community-Based Organization (CBO). However, nutritious food was not of primary concern for these women; any food was needed. In response, we launched a food rescue program. We collect food, that would otherwise go to waste, and redistribute it through the CBO, to migrant women and their families who lack 'same day' food. Through focused ethnography, we studied the program's evolution and impact. The research questions were, 'What are the necessary components of a food rescue program?' 'What is its impact on its recipients and CBO workers'? Data collection included: a) participant observation at the food distribution site and at planning meetings (25 fieldnotes), b) 30 short formal interviews with all CBO workers involved in the program, and c) program documents. Data were analyzed using qualitative content analysis. Rigor was ensured through methodological cohesion, iterative data collection and analysis, sampling adequacy, participant checks, peer review, and an audit trail. Necessary program components included: involvement of the university, in-depth knowledge of the food landscape, safe distribution conditions, and challenging existing charity models. Impacts occurred at the individual (women received food), organizational (CBO workers spent less time obtaining emergency food resulting in more time to address root causes of poverty) and systems levels (city-wide attention to food rescue and improving food systems). When developing a food rescue program, particular components should be considered for increased likelihood of success.

## Saturday Session III: 13:15-14:45

Room: *To be Announced in Final Schedule*

Session Topic: Teaching Experiences, Pedagogy, Practice & Praxis

Session Chair: *To be Announced in Final Schedule*

**44504**

### **Through my Autoethnographic Lens: ITAs Experience and Identity in Teaching at a Canadian University**

Akiko Ohta, Simon Fraser University, Canada

As North American universities admit more international graduate students, the number of International Teaching Assistants (ITAs), has increased, and it has been problematized as undergraduate students complain about the ITA's command of English and the quality of teaching. The previous researches mainly focused on ITAs' language proficiency and language assessment, framing their English ability as the main problem. Most of this research has been conducted through the interests of institutions, aiming to raise ITAs' teaching standard to the level of native English TAs. Is this the direction universities wish to go with the internationalization of the university? What attributes could ITAs bring to be utilized and beneficial for both universities and undergraduate students? While more recent researches also bring the issues of undergraduate students' biases and unfamiliarity with being taught by non-native English teachers with the international background (Manohar & Appiah, 2016), my study would explore ITA's experience and identity through my autoethnographic lens. Building on Zheng (2017)'s claim on translingual identity as pedagogy, this autoethnographic research will examine 'how these differences make a difference in the actual instructional interactions and more importantly how these differences can be managed' (Chiang, 2011). This autoethnographic study on the ITA research would contribute to the research area by adding ITA's perspective in developing institutional support for ITAs.

**44626**

### **Resisting Neoliberal Subjectivities: Resonant Texts as a Re-Humanizing Strategy in Higher Education**

Josephine Pui-Hing Wong, Ryerson University, Canada

Neoliberal capitalization has intensified social, economic and environmental inequities within and across nations. Health and social care professionals are increasingly challenged in meeting the complex needs of marginalized communities while coping with austerity, deregulation and erosion of social welfare. Neoliberal ideologies of technical rationality, standardized performance and performance efficiency are also eroding the fundamental principles of compassion, social justice and equity that underpin higher education and human services. This paper reports on the use of 'resonant texts' – as a re-humanizing teaching strategy with graduate students – to evoke authenticity, critical reflection, embodied learning, empathic connections and dialogue for social change. Guided by 'the personal is social, political and spiritual', students were asked to draw on their lived experiences, course materials, and class discussions to create and share their resonant texts (e.g., poems, paintings, drawings, sculptures, and mixed-medium creations). Initially some students found it difficult to 'deviate' from cognitive analyses and technical writing that often suppress or exclude their authentic selves. However, students shared at mid-term that creating resonant texts had enabled them to: (a) reconceptualize learning beyond performance measures; (b) engage with embodied learning; (c) reconnect to compassion for themselves and others; and (d) recognize the situatedness of their professional practices within the changing socio-political systems. In summary, re-humanizing approaches that promote transformative learning are critical to higher education. Since reflexivity is an embodied practice, supporting



students to make sense of how their social identities and lived experiences shape their personal and professional practices will also help to de-neoliberalize their subjectivities.

**44443**

**Towards a Pedagogy of Resilience**

Gabrielle Lindstrom, Mount Royal University, Canada

Indigenous peoples, forced to live under the yoke of colonial oppression, have been denied the freedom to determine their own destinies. This includes not only losses directly resulting from colonization such as language, traditional practices and social organizations but also an ability to define current experiences from a uniquely Indigenous perspective. However, within an increasingly dynamic and changing socio-political and cultural landscape, members of Indigenous tribal communities are reclaiming their Indigeneity by theorizing on cultural continuity at the intersection of ancient tribal wisdom and contemporary pedagogy within higher-education. Exploring Indigenous perspectives on resilience from a stance that is grounded in the Indigenous lived-experience is one example of how Indigenous peoples are reclaiming their right to self-determination. In Canada, a commonwealth country established within a colonial ideological framework, current Indigenous issues are foregrounded by the Truth and Reconciliation Commission's findings in relation to assimilationist policy that was, in part, manifested through the Indian Residential Schools and the horrific abuse that occurred within these institutions. Among many other action items, some of the 94 Calls to Actions that emerged from these findings issue a significant challenge calling for the inclusion of Indigenous ways of knowing into institutes of higher education. Informed by my doctoral research, I examine how resilience from an Indigenous perspective emerges through relational and reciprocal processes between students and instructor and how Indigenous pedagogical approaches premised within Indigenous tribal philosophies can intentionally foster student resilience. I offer teaching strategies and assessment techniques leading to successful learning outcomes.

## Saturday Session IV: 15:00-16:30

Room: *To be Announced in Final Schedule*

Session Topic: Learning Experiences, Student Learning & Learner Diversity

Session Chair: *To be Announced in Final Schedule*

### **42657**

#### **Assessing the Impact of Teaching the "Simple" Strategy to Address Student Learning and Diversity Challenges at a Caribbean University**

Zuwena Williams-Paul, The University of the West Indies, Trinidad and Tobago

This study employed a mixed methodology with a, quasi-experimental, grounded theory research design whereby, from a population of 108 tertiary students who were identified and flagged on entry (Time 1 at the beginning of the semester) as having an External Locus of Control, a sample of 54 was split into one Control and one Treatment group. The Treatment group was taught the "SIMPLE" strategy (Internality instruction) as a strategic measure to stimulate the students of this group, to think and behave more Internally which is, more desirable for holistic and academic wellbeing. The Control group was not treated and so did not receive the "SIMPLE" strategy instruction. Both the Control and Treatment groups of Externals were re-tested at the end of the semester at Time 2, and similar to previous international research, but, now in a Caribbean setting, the mean Locus of Control (LoC) score of the treatment group had desirably reduced.

### **44335**

#### **Classroom Interactions in the Tertiary Level**

Nelie Salvador, Mariano Marcos State University, The Philippines

The study aimed to determine and analyze classroom interactions in Social Science, Filipino and Physical Education subjects at Mariano Marcos State University. Specifically, the researcher analyzed the pattern of exchanges of teachers and students; language used by teachers and students; linguistic structure of teachers' and students' utterances; and language function of teachers' and students' utterance. Tape recorder was used in recording classroom interactions. Based from the study, there were seven structures of exchanges from teachers' and students' utterances. These were the TPT, TP, TPTPT, TPTP, T, TPPPT, TPTP, TPPP, and PT. English, code-mixing, Filipino, code-switching, and Ilokano were used in the discussion. The use of English language in all classes and Filipino language in Filipino classes was revealed. Code-mixing was also integrated to facilitate easier discussion, communication, sharing of ideas, opinions; and as a result of being trilingual or bilingual. Ilokano language was used by teachers to give emphasis for the first utterance, and to encourage students to participate in classroom interactions while students share their opinions, and reactions. Code-switching was used to share quotations, examples, use of tag questions while students share messages. Teachers most often used paragraphs, phrases, sentences, and words in class discussions. Fifteen categories such as informative, elicitation, directive, comment, marker, conclusion, cue, aside, nomination, accept, check, starter, prompt, metastatement, and evaluate were also used. Meanwhile, reply, silence, react, informative, elicitation, comment and loop were also revealed.

### **44400**

#### **Training Teachers to Manage Culture and Identity Challenges in the Global Classroom**

Adrienne Johnson, Missouri Western State University, United States

Ogbomo Queen, Tennessee Technological University, United States

With the global migration of families, teachers from dominant cultures or languages have the responsibility to help minority and migrant students integrate into the community while positively engaging their native identities (McBrien, 2005). For this to occur, teachers must develop respect for the cultures of the minority or migrant communities with which they work (Cummins, 2013). The dynamics of training effective teachers of diverse students is complex. In the U.S., many teachers are white and women, but teach students from all backgrounds (Hodgkinson, 2002). Teachers from demographically homogeneous backgrounds often teach in diverse contexts. Globally, teachers are often trained in urban settings, but teach in rural settings. Teachers who speak dominant languages (English, French, Mandarin, etc.) teach in schools and communities with local, endangered languages (Menken & Garcia, 2010). Teachers who lack exposure to diverse populations need training before they can manage classrooms with complex identities and value systems (Roxas, 2010). Attendees to this session will have a chance to participate in sample strategies used in an action research project implemented in teacher education programs in two different regions of the United States. In this project, teachers in training engaged in empathy-building strategies to help them develop self-awareness of their own basic value systems and world-views, while also helping them to understand the value systems and world-views of their students. The presentation will include a discussion of a quantitative pre- post- survey given to the pre-service teachers, teachers' qualitative reflections on their learning, and implications for teacher training programs.

## Saturday Session IV: 15:00-16:30

Room: *To be Announced in Final Schedule*

Session Topic: Education: Technology, Pedagogy & Special Needs

Session Chair: *To be Announced in Final Schedule*

### 45019

#### **Tough Situation of Teachers in Information Technology in Japanese Junior and Senior High Schools**

Yoshiaki Nakano, Kobe Municipal High School of Science and Technology, Japan

Yasuichi Nakayama, University of Electro-Communications, Japan

Japan played a major economic growth after the World War II, which could be realized with high industrial skill because of engineering education such as mechanical engineering and electrical engineering. However, in recent years, everyone agrees that the importance of information technology is rapidly increasing, while the industrial technology is also inevitable. Currently in Japan, IT education is responsible for the subject "Technology" in junior high schools and the subject "Informatics" in senior high schools. It is self-evident that excellent education relies heavily on excellent teachers. The recruitment of teachers in Japan is conducted for each prefectural board of education. The authors asked all the boards of education throughout the country to disclose information and investigated the present situation of hiring teachers. As a result, despite the fact that the number of faculty members in "Technology" in junior high schools and "Informatics" in senior high schools is much less than the required number, almost no faculty recruitment has been conducted, and as a result, It is clear that teachers of unrelated subjects doing classes or letting people without teacher's license temporarily take charge of classes. Because such an environment, class content is far from computer science in many cases, education is almost not done such as programming. Fulfilling the teacher recruitment and in-service teacher training and improving Japan's information technology capabilities, the authors are very worried about the future of Japan.

### 45119

#### **An Interactive Mining for Early Detection of Students with Learning Difficulties Using Moodle's Clickstream**

Konomu Dobashi, Aichi University, Japan

In this study, course materials, mainly in the form of PDF files, were uploaded to a learning management system (Moodle) and face-to-face lessons were conducted. Student clickstreams of the course materials and the results of quizzes were collected. The quizzes, which used a five-alternative format, were prepared from the course materials. Data from the course material clickstream and the results of the quizzes were analyzed, and these were conducted from the viewpoint of educational data mining and learning analytics. A scatter chart was created to classify students into the following four groups based on deviations from the average value of clickstream and quiz scores: (1) those with high clickstream and high quiz scores, (2) those with low clickstream but high quiz scores, (3) those with low clickstream and low quiz scores, and (4) those with high clickstream but low quiz scores. Especially in group 3, the lower part of the group appears to include students who have learning difficulties. It is shown that an analysis of the results of 12 quizzes and corresponding student clickstreams can lead to the early identification of students with learning difficulties and enable a corrective intervention. It is also shown that ineffective course materials can be identified by linking course materials and quizzes clearly and distinguishing the same four group categories as above for course materials.

44398

**Interdisciplinary Approach to Training Healthcare Professionals to Address the Effects of Adverse Childhood Events Using Simulation and Video Annotation**

Kim Coon, The University of Oklahoma, United States

Frances Wen, The University of Oklahoma, United States

Julie Miller-Cribbs, The University of Oklahoma, United States

Kristin Rodriguez, The University of Oklahoma, United States

Martina Jelley, The University of Oklahoma, United States

Adverse childhood experiences (ACEs) are 10 categories of childhood abuse and maltreatment which have a dose-response relationship with common adult health concerns seen in healthcare settings including health risk behaviors, chronic disease, and mental illness. Many of the ACEs-associated biopsychosocial risk factors are modifiable. However, healthcare professionals may not address these issues for fear of opening 'Pandora's Box', i.e., a source of extensive problems for which they may feel that they are not sufficiently prepared for with training, resources, or time. Trainees need instruction in how to conduct trauma-focused conversations within the limited scope of an office visit and to deliver successful interventions. To address this need, we have developed and implemented a 4-hour simulation and video based training program for healthcare professions trainees on how to conduct brief interventions connecting their patients' current health concerns and their experiences of ACEs. We have completed workshops that included didactic sessions followed by individual simulations with standardized patients for over 500 trainees. Participants have evaluated this program as preparatory for real-life encounters, and as being designed to allow for educational mastery. This presentation will describe the curriculum including the five targeted skills, and illustrate the key components (i.e., didactics, provider and patient videos, simulated-patient encounters, trainee feedback, and facilitated discussion that encompasses targeted skills, clinical implementation, and self-care). We will share outcomes from a mixed-methods evaluation of the training program.

## Saturday Session IV: 15:00-16:30

Room: *To be Announced in Final Schedule*

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

Session Chair: *To be Announced in Final Schedule*

**44396**

### **Sociocultural Perspectives on Independent and Interdependent Identity Development in the Writers' Workshop**

Sara A. Field, George Mason University, United States

The study of writing often focuses on text production or the cognitive events in producing writing. Issues of researching, teaching, and producing writing are further complicated from a sociocultural perspective, which posits that 'good writing' is socially constructed, not universal (Woodard, R., & Kline, S., 2016). This presentation explores the Writers' Workshop model from a sociocultural framework, examining how the procedures, environment, and community of practice motivate students to develop independent and interdependent writing identities. Writing and Writers' Workshop are social and cultural processes that reflect and privilege cultural values (Woodard, R., & Kline, S., 2016). Writers' Workshop is a process-oriented approach to writing that focuses on student choice, ample writing time, conferencing, sharing, and building a community of writers (Calkins, L. M., & Harwayne, S., 1991). Research supports that the process-orientation model increases self-efficacy, engagement, and other motivation constructs that correlate to academic achievement (Pajares, F., Johnson, M.J., & Usher, E.L., 2007). In addition to increasing writing performance, writing and writing identity change and develop through social interactions (Woodard, R., & Kline, S., 2016). Writers' Workshop creates a community of practice in which students learn from each other through sharing, peer feedback, and vicarious learning. Writers' Workshop fosters social interactions among students (Burns, T.J., 2001; Englert, C.S., 1992; Rowe, D.W., Fitch, J.M., & Bass, A.S., 2001; Vygotsky, 1978; and Woodward, R., & Kline, S., 2016); teachers can leverage those social interactions so students can independently and interdependently develop writing identities and proficiencies.

**44432**

### **Healing and Honoring Wounded Identities to Improve Motivation and Academic Achievement**

Elisabeth Chan, Northern Virginia Community College, United States

Ladson-Billings (2006) coined the term education debt in response to the focus on the achievement gap, also known as the opportunity gap. She urged researchers and educators to reframe the problem, shifting blame from the students and their families or communities onto the historical, political, sociocultural and moral barriers embedded in institutions that influence U.S. education. Despite this call to action over a decade ago, the problems persist. One large factor hindering positive changes toward more equitable education is the fact that it is difficult to change ideologies, but practices themselves resist change without first changing ideologies (Gorski, 2017). Two prevalent ideologies that prevent shrinking the opportunity gap are the myth of social mobility and meritocracy (Reeves, 2018). These deeply ingrained ideologies in the fabric of American identities are internalized by students and teachers with repercussions on their self-efficacies and engagement which can negatively impact their success with schools and academics (Pajares & Johnson, 1994). In fact, Olson (2015), suggests that we focus on the mental and emotional disengagement faced by millions of students and teachers, rather than test scores. Institutions that value conformity over creativity hamper student success and wound identities, so engagement with learning can increase by examining, embracing, and honoring our unique identities. This conceptual presentation will begin with a brief background on the education debt and current opportunity gap statistics, followed by

examples of Olson's (2015) seven school wounds, how educators can address them, and suggested questions researchers can apply to their research.

**44875**

**A Case Study of a Character Education/Anti-Bullying Curriculum and Teacher Perceptions in Pre-Kindergarten and Kindergarten**

Kenton Wong, University of Hawaii, United States

This paper explores the serious issue of bullying in school settings and reports on a descriptive case study of IM4U, a character education curriculum, in an early childhood education setting. IM4U addresses the social and emotional development of young children with a focus on anti-bullying that aims to help children learn through the development of a safe learning environment with the use of music, activities, and discussions. The case study includes an examination of teacher perceptions regarding the use of the program as an anti-bullying curriculum. Results from the data allowed the researcher to generalize that pre-kindergarten and kindergarten students had varying levels of development of core values and that teaching character education in early education has positive effects on students' core value development. Findings also demonstrated that bullying, including physical, verbal, and emotional, is a problem in pre-kindergarten and kindergarten. Teacher perceptions and impressions of the IM4U program indicated that they liked the overall idea and concept of a curriculum addressing bullying behaviors and felt that songs, activities, and discussions effectively influenced students' thoughts and behaviors; however, teachers believed that this curriculum was more appropriate for older students and suggested making the curriculum more user friendly for pre-kindergarten and kindergarten. This short-term study builds upon the research base in the social and emotional development in early education and recommends that more long-term and longitudinal studies of larger student populations be conducted to measure the effects of character education and anti-bullying programs on student outcomes including the earliest grades.



## Saturday Session IV: 15:00-16:30

Room: *To be Announced in Final Schedule*

Session Topic: Challenging & Preserving: Culture, Inter/Multiculturalism & Language

Session Chair: *To be Announced in Final Schedule*

### **44545**

#### **Learning About Cultures in a College Classroom Exchange**

Melody McMurry, Portland Community College Rock Creek Campus, United States

Encouraged by a college administration in efforts to internationalize curriculum, community college instructors in Sociology and ESOL collaborated on an interdisciplinary project: The Culture Exchange. in which Introductory sociology students welcomed ESOL classes of International students from throughout the world, to discuss topics related to sociology while practicing English acquisition. Each week students met new students and discussed social topics related to culture, social roles, family life and rituals, social groups, socialization, deviance, and class, gender, and racial inequality in societies. After four years (2012-2015) of evaluations were completed, a total sample of 110 sociology students who participated in the project completed twenty question surveys at term end. Findings included the following: Students gained greater global perspectives, cultural awareness, and personal growth through the experience, and could apply the learning to their career goals. Further, they ranked gender inequality as the greatest gain in understanding inequality in society as well as understanding sociology. Finally, when ranking this course requirement with other assignments: reading, quizzes, library reviews, lecture, ancestor mapping, students overwhelming chose the two international requirements: ancestor mapping, and culture classroom conversations, as their favorites. It is clear that the project was of value to both groups of students, to the commuter campus culture, to these students communities and families. Since community colleges have a wealth of international students taking English, this project helps support global education, students, the college community, and faculty collaboration at very little cost to the institution, while revitalizing faculty instruction and internationalizing curriculum.

### **44473**

#### **Language Images: A Discourse Analysis of Learners and Teachers' Identity Transformations in International Schools**

Ana Paula Cortez, The American School of São Paulo, Brazil

This presentation, organized in the Challenge and Preserving: Culture, Inter/Multiculturalism, and Language theme/stream, aims at analyzing the constitution of political, academic, psychological and emotional discourses of individuals that belong to international school communities. Our main goal is to investigate the linguistic actions of such individuals and their discursive practices that support and shape their linguistic representations and identities. This analysis examines the mechanisms that build up and sustain language images that are created by individuals while teaching-studying foreign languages and the development of an intercultural sensitivity throughout the teaching-learning process. We will present testimonies and academic productions that depict transformations as teachers/learners get acquainted and immersed in the local cultures. Our theoretical background is grounded on the studies of Social Historical Activity Theory, as designed by Vygotsky (1933) and Leontiev (1977), as well as Bennett's Developmental Model of Intercultural Sensitivity (1986/2004) and Useem's (1963), Pollock's (2009) and Moore & Baker's (2012) approaches to Third Culture Kids studies. Our objective is to identify the perceptual process that occurs when an individual starts to recognize the existence of cultural differences and begins to stabilize and to collaborate in the new environment, to the point that cultural norms are not imposed anymore. Therefore, subjects start developing cultural self-awareness and reconcile with diversity, embracing and committing to the new culture.

**44988**

**Chinese Immigrant and European American Parents' Emotional Expressions in Childrearing**

**Activities: Cultural Norms of Emotions**

Yvonne Yihsing Liu-Constant, Lesley University, United States

Both European Americans and Chinese immigrants value emotional expressions that are true to inner feelings, and adhere to social norms dictating appropriate expressions for different situations. However, the two groups differ in how they coordinate the values of being faithful to inner feelings and to social norms. The European American culture values an individual's genuine expressions of emotions over allowing social norms to unduly dictate one's behavior. The Chinese culture values social norms over explicit, individualized expressions of inner feelings. This study hypothesized that Chinese immigrants may be less likely to express inner feelings in social situations that are heavily regulated by cultural norms, and more likely to express feelings in lightly regulated situations. European Americans may differ less in emotional expressions across social situations due to the greater emphasis on self-consistency. Parent interviews about their childrearing practices were conducted, and two childrearing activities, sleeping and privacy-related activities, were selected for analysis according to cultural norms. Findings indicated that the two ethnic groups had different patterns in how their emotional expressions changed according to situation, and the patterns fit their respective cultural norms. Contrary to prediction, while the self-consistent orientation of European Americans was supported in that they were more likely to voluntarily express feelings in both activities, the European American parents also changed their emotional expressions to fit social situations through variations in positive versus negative expressions. The discussion centered on the interactions among social situations, measures of emotional expressions, and cultural norms.

## Saturday Session IV: 15:00-16:30

Room: *To be Announced in Final Schedule*

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

Session Chair: *To be Announced in Final Schedule*

### 44536

#### **An Ensemble Cast Play Drawn from Characters in TV Dramas and Films for Foreign Language Learning**

Eunju Na, New York University, United States

Eunyoung Na, Chonnam National University, South Korea

Teaching a foreign language through drama is an effective approach that learners can apply the target language to communicate as well as understand the use of language in real-world contexts. Making and performing a playlet is one of the valuable methods to integrate and utilize what students have learned from a language course. In addition to see the benefits of cooperative group work while creating a skit, the presenters examine how to involve individual's contributions and responsibilities similarly to teamwork in Korean language classes. This research provides a thoroughly designed project setting to facilitate learners' motivations and well-structured plays. First, each student watches Korean TV dramas and films over the semester and autonomously chooses a character having a distinct personality trait. Then, students in a small group write a collaborative script using the selected characters for an ensemble-cast drama. At the end of a semester, each group presents their playlets to the class. This study will share the detailed project setting and procedure and the findings in developing an ensemble casting by adopting Korean TV drama and film characters. Through it, the panel will discuss the advantages of the project and suggest further strategies for other foreign language educators.

### 44534

#### **English for Specific Purposes in a Rapid-Changing World: Fostering Language Skills Using Musics and Songs in the Foreign Language Classroom**

Simoni Valadares, University of New Mexico, United States

This study explores the use of musics and songs as didactic and pedagogical tools for supporting students in learning foreign languages, particularly English for speakers of other languages (for Brazilian Portuguese speakers), focusing on English for Specific Purposes classrooms (workplace communicative approach) in higher education institutions under functional, sociocultural and cognitive linguistics perspectives. In designing a course tailored for learners of English in workforce, relevant elements of the target language and scenes of work environment for mastering the language in usage events within workforce are considered, reflected upon, and turned out into scenarios for communicative practices. Language(s)/linguistic and cultural background of the learners are strongly considered. The perspectives of language patterns in a multi-domain of practices are supplemented by pedagogical and didactic tools that use music and songs. This study aims at modestly contributing for the discussion on strategies for improving the teaching and learning English for Specific Purposes and to the betterment of teaching-learning of terminologies and vivid scenario for practicing pronunciation and vocabulary while exploring the potential value of using musics and songs as part of a method of language practice in the classroom for Brazilian Portuguese speakers. The aim is to develop linguistic and communicative competencies that contribute for a classroom that can effectively support the development of students' skill for communicating in workplaces akin with functional competency. Issues of terminologies, semantic fields, language and the lexicon, and usage-based contexts are also taken into consideration.

**44475**

**Flipping an EFL Sports ESP Course Using ECS-Based Instructor-Created Youtube Videos and a OMP Technique**

Namhee Kang, Chung-Ang University, South Korea

Student-athletes usually prioritize athletic success rather than academic achievement so that they unavoidably face the confusion between the role of a student and of an athlete. This study aims to address a flipped communicative learning and teaching model in order to motivate student-athletes to take more accountabilities on their learning, especially English which is one of the subjects required by student-athletes' minimum academic achievement policy in Korea as well as they've been displaying strong demand of. Nineteen Korean male student-athletes took an ESP course for one semester in which three steps proceeded; watching ECS (Emotionally Competent Stimulus)-based YouTube videos before class, doing in-class activities and wrapping up with OMPs (One-Minute Paper) during class and reviewing class with instructor-created YouTube videos with quizzes after class. Based on a pre- and a post-questionnaire, weekly OMPs and focal interviews, the findings illustrated that the students considered the model was necessary to allow managing their self-regulated learning and autonomy. They were more comprehensible and had more fun with in-class activities based on the YouTube videos consisting of short spoken utterances including formulaic expressions, which were suitable for beginners. The instructor-created videos served after class gave opportunities to make up their missing classes. Easy accessibility on YouTube played a great role in letting them more chances to be exposed to English. The OMP turned out a very effective mechanism for teacher-students' interaction. The model ended up making the students start recognizing academic responsibilities more than before and become more aware of the importance of English instruction.

## Saturday Session IV: 15:00-16:30

Room: *To be Announced in Final Schedule*

Session Topic: Urban Ecosystems

Session Chair: *To be Announced in Final Schedule*

### 45011

#### **Synurbic Space: Reclaiming the Urban Wild**

Rua Alshaheen, Arizona State University, United States

The concept of urban animals has thus far been directed by spatial and temporal changes. Humans and wild animals have been trespassing into each other's spaces as populations grow and habitats destroyed, respectively. As cities are evolving, cohabitation between humans and animals often occurs below the radar. The narrative that animals have either been introduced into cities overtime and fluctuate in abundance is being challenged. Some urban animals are in fact the original inhabitants of these cities, and have simply lived on in their independent habitats and managed to stay unnoticed. Other animals, albeit being originally found in these areas, have been forced to adapt to the changes in their surroundings as a result of urbanization. Containment as a means of spatially separating humans and wild animals has been the practice for years. However, an urban wild environment comprising of opportunity and risk is replacing the concept of a static nature in a city. Current ideas of cohabitation require humans, animals and the environment to be considered simultaneously, and challenge the current human-centric views and attitudes. Therefore, the power shifts of city spaces have been reflected in several urban intervention projects. By reclaiming the city, designs for non-humans move from a space of rigidity to one of flexibility and accommodation. Proving that animal adaptation to urban environments does not need to be viewed as a fight for survival, or "just holding on", but as a "story of co-existence".

### 44243

#### **Modeling the Residential Electrical Consumption and Energy Policy Analysis in Taiwan**

Po-Hao Lu, National Cheng Kung University, Taiwan

Yen-Jong Chen, National Cheng Kung University, Taiwan

More than 92% of Taiwan energy sources are imported, including coal, oil, natural gas, etc. The self-supported energy sources are quite limited. Nevertheless, the electric power price in Taiwan is rather cheap when comparing to other energy imported countries, such as Japan. That results the question of overuse of electric power much more than what is real needed in Taiwan, especially in residential sector. In this paper, we focused on the demand side to explore the electricity consumption and factors affected in the county level. Factors include residence habits, local climate, household economic status, building characteristics, and demographic factors, etc. The empirical data are selected from the panel type data source in month from 2012 to 2016. The data were collected from government departments' open data. Also, applying individual effects is regarded as the habits difference effect in each county. This paper estimated through the Pooled Mean Group (PMG) Model. PMG provided what use-characteristic types for each county in short-term so that this paper could advise how to modify the local government policies based on bottom-up aspect. With the model constructed, we are able to evaluate some energy policies that may affect the residential power use.

### 44253

#### **Evaluation of Slope Greening Performance in Promoting the Urban Ecology of Hong Kong**

Ngai Lung Chau, Technological and Higher Education Institute of Hong Kong, Hong Kong

Urban expansion leads to a large scale of terrestrial habitat loss in Hong Kong. Urban greening plays a crucial role in ecologically restoring the degraded landscapes by promoting biodiversity and ecosystem services. Slope greening occupies to a considerable proportion of greening works in Hong Kong due to the presence of hilly topography and highly urbanized landscapes and its performance draws our attention. A common greening strategy such as planting of herbaceous groundcovers is usually carried out on soil slopes while its effectiveness is seldom reviewed. Besides the capabilities of forming a dense green cover, the roles of planted groundcovers in proliferating plant diversity are also important in promoting a sustainable green cover. Moreover, unlike other urban landscapes, the slope features such as angle and orientation influence substantially the vegetative growth of soil slopes. Our study focuses on evaluating the greening performance of soil slopes in Hong Kong by investigating the current vegetation abundance and structure. Any special findings regarding to the distinct groundcovers dominating soil slopes will be disseminated. The relationships between vegetation and slope performance, which govern a healthy plant community on soil slopes, will also be discussed. Furthermore, a comprehensive analysis regarding to the influences of soil properties on slope greening will be shown. All these provide useful information in reviewing the current greening strategy in promoting our environmentally sustainable city. Constructive suggestions based on our precise findings will be made to improve the greening works and any practical measures can be recommended to other cities.

## Saturday Session IV: 15:00-16:30

Room: *To be Announced in Final Schedule*

Session Topic: Economic and Social Inequality

Session Chair: *To be Announced in Final Schedule*

**44427**

### **Poverty and Social Inequality Through Land Grabbing and Landlessness in the Philippines**

Reginald Vallejos, University of the Philippines Manila, The Philippines

Celeste Vallejos, University of the Philippines Diliman, The Philippines

In a country that is characterized by a long standing problem of poverty, it is the aspiration of its people to see their country develop. This is the case of the Philippines. While most of its Asian neighbors do well in their drive for development, the Philippines remained underdeveloped and majority of the Filipino people are poor and vulnerable. The Philippines is an archipelago endowed with rich natural resources including fertile lands and mineral resources. The country's total area is 300,000 square kilometers, composed of 298,000 square kilometers of land and 1,830 square kilometers of water bodies. Majority of the Philippine population depend on land for sustenance, especially the Filipino farmers. But because of the continuing land grabbing and landlessness, they suffer in dire poverty. Land grabbing and landlessness is among the biggest problem in the Philippines that makes the majority of the population vulnerable. The paper will present the effects of land grabbing and landlessness to the lives of the Filipino people, especially the farmers who are among the vulnerable sectors in the country. It will propose the importance of genuine land reform as a tool for social justice, genuine development, and just and lasting peace.

**45050**

### **The Consequences of Sustainability Strategy**

Yu-Chun Lin, National Changhua University of Education, Taiwan

Chin-Shan Kuo, National Defense Medical Center - Tri-Service General Hospital, Taiwan

This study examines the economic consequences of sustainability strategy, which are reflected as firm value, investors' evaluation, and social perspectives. The cost structure on corporate finance will be discussed. We employ Heckman-two stage process to control for the endogenous bias. Using Taiwan firms that earned 'Corporate Social Responsibility' awards from Taiwan Institute for Sustainable Energy during the period of 2005-2016, we find significant association between sustainability activities and of firm value. Specifically, when firms have high quality of corporate governance, sustainability strategy activities are positively associated with firm performance. Our empirical results suggest that sustainability strategy has a significant effect on the association between firm performance and investors' evaluation.

**44332**

### **Right-Wing Populism, Eco-Populism, and the Future of Environmentalism**

James Stone, Mt. San Antonio College, United States

My paper analyzes the populist rupture in what is generally understood as 'normal politics' and the implications of this rupture for ecological theory and environmental policy. I draw on John Judis' book "The Populist Explosion: How the Great Recession Transformed American and European Politics" and other works to define populism generally as well as the difference between left-wing and right-wing forms of populism. Using Judis' analysis as a starting point my paper traces the right-wing populist approach to environmentalism that assumed prominence in the Reagan administration to the view of environmentalism that prevails in the Trump administration. I then draw on Andrew Szasz's book "Ecopopulism: Toxic Waste



and the Movement for Environmental Justice" and other works to explore ways to transform ecological theory, strategy and messaging to enact environmental policies that enjoy broader and more active public support and are, therefore, more resilient in the face of right-wing populist attacks. Classical republican themes of independence and self-reliance found in populism alongside themes of interdependence and cooperation to achieve collective ends are a focal point of this paper. Drawing on Herbert Reid and Betsy Taylor's "Recovering the Commons: Democracy, Place, and Global Justice", ecopopulism is defined as a discourse that not only divides the political landscape between elites and ordinary people with regard to disparities in wealth and power, but that also provides a vision of community that has the potential to unite and empower ordinary people in the common purpose of caring for each other, the earth, and future generations.

## Virtual Presentations

**43210**

**Assessing Barriers to the Diffusion of Net-Zero Homes: Consumer Response to the Solarhouse Demonstration Project**

Philip Walsh, Ryerson University, Canada

Buildings are responsible for a significant proportion of the total energy and carbon emissions worldwide and as such the building sector can be integral to the implementation of sustainable development strategies. One of those strategies is encouraging the construction of net-zero energy buildings and residential houses. Data was gathered from attendees of the 2017 Expo for Design, Innovation, and Technology in Toronto, Canada who visited a demonstration net-zero energy home at the Expo, and subjected to multivariate correlation and regression in order to provide some insight on the relative influence of certain barriers to the adoption of the net-zero housing technology. Our results suggest that cost, knowledge, and social compatibility barriers that might limit the diffusion of this housing innovation can be overcome if consumers are provided the opportunity to experience the construction and design quality of a net-zero house. However, addressing knowledge barriers remains important in reducing sensitivities to the extra investment cost of a net-zero house when compared with conventional housing. The findings of this study present implications for the housing industry in developing sustainable housing.

**43468**

**Basic Research and Ethical Inquiry for EFL Students: Implementation and Reflection**

Michael Houston Brown, Kanda Institute of Foreign Languages, Japan

Ethical inquiry and reasoning are essential types of critical thinking. Developing and understanding research skills are necessary components of a university education. This presentation will detail the rationale, design, implementation, and instructor reflection of an integrated research skills, ethical inquiry, and essay writing unit in an undergraduate, low to low-intermediate proficiency, English as a Foreign Language (EFL) university course in Japan. The rationale will be discussed in terms of why ethics and research skills should be introduced, even with lower proficiency students, and why ethics and research skills may be an effective language learning combination for EFL students. The design will be discussed in terms of unit planning and intended outcomes, as well as how to structure the introduction of ethics in an appropriate fashion that does not tell students what to think, but rather allows space for students to use their own powers of reasoning. The implementation will be discussed in terms of classroom and pedagogical choices that make the unit accessible and meaningful for students. The instructor reflection will be discussed in terms of perceived outcomes, feedback, challenges, and ideas for future units. Overall, the presentation will describe a flexible student research unit that provides opportunities for meaningful target language use and can be modified for a wide variety of teaching and learning contexts.

**44440**

**Endangered Cultures: The Tacit Wisdom of the Past**

Ismat Hossain, North South University, Bangladesh

Bangladesh has a wealth of indigenous communities and ethnic groups scattered across its geographical territory. More than twenty seven different peoples and cultures have been identified each with its rich and diverse cultural practices. Having been marginalized both in terms of authority and connectivity, these people are in most cases deprived from the mainstream infrastructural and technological advancements. However this remoteness from conventional development has also given them the opportunity to sustain and reinforce their irrevocable interrelationship with their surroundings. One such example is the 'Tripuri'

people that inhabit the fringes of Rema-Kalenga Wildlife Sanctuary, a protected forest and wildlife sanctuary in Bangladesh. The "Tripuri" people, who have been living here for many generations, are interdependent on the forest ecology for their subsistence in countless ways. The Sanctuary thrives on a wide range of bio-diversity and is home to many rare and endangered species of plants, birds and animals. Due to lack of proper governance and inconsiderate development activities the future of the forest and its inhabitants is under constant threat. Much like the forest the people there, too, have a culture that is constantly intimidated by the ostentatious temptations of progress. The ancient wisdom and ways of the Tripuri people is a valuable storehouse of information and insight into the bio-network of the forest and its ecological context. Losing their ways and customs could cause irreversible loss of the collective and accumulated experience that these people have acquired over time.

**44467**

**Social and Academic Impacts of Studying Abroad**

Sean Gay, Kwansei Gakuin University, Japan

Study-abroad experiences are often researched in terms of cultural competency and linguistic development, which is limiting because it ignores a broad range of experiences related to the study-abroad experience. In contrast, this study used a transcendental phenomenological approach to examine the subjects' general academic and social development experiences in the context of involvement in study abroad. The primary source of data was semi-open interviews with individuals that were publicly recruited. The participants had studied abroad and ranged in age from 19 to 43. Data analysis revealed the themes of changes in relationships, support networks, outsider, and liberation. These themes suggested that broader preparation programs and improvements in student support might be advantageous or necessary. This information can lead to improvements in the understanding of both the social and academic issues that students can expect to encounter when they study abroad. This information could also improve programs designed to prepare students for studying abroad.

**44600**

**Language Learning Strategies of Grade VIII Students in Tabuk City National High School, Tabuk City, Kalinga**

Shiela Esteban, Tabuk City National High School, The Philippines

Teacher's knowledge about his students is crucial in his effort of making learning meaningful. Moreover, knowing how students learn the English language could help English teachers plan activities suited them. This study generally determined the English language learning strategies of the grade VIII students in Tabuk City National High School, 2015-2016. It specifically found out the extent of dominant manifestation of the language learning strategies of the respondents along Memory, Cognitive, Compensation, Metacognition, Affective, and Social and its significant difference when respondents are grouped according to gender and the school program they belong. The descriptive survey method was used with the Strategy Inventory for Language Learning (SILL) (50-item version 7.0 ESL/EFL) of R. L. Oxford as the instrument. t-test and Analysis of Variance (ANOVA) were used to determine if there were significant differences in the extent of dominant manifestation of language learning strategies of the respondents when grouped according to the moderator variables. Results showed that grade VIII students moderately manifested the language learning strategies along the six categories. Both male and female grade VIII students perceived that the language learning strategies were somewhat true to them. Regardless of school program, the students employed language learning strategies at about the same frequency which bid them in developing the macro skills in communication arts. Recommendations included that language teachers should integrate language learning strategy trainings in their lessons to make students aware of the benefits of using these in learning the English language.

**44733**

**The Self-Management System Standard for a Prosper Lifestyle: An Educational Module for Dependencies Interface Management: From the Teachings of Islam**

Ruba A M AlZeer, PROSPETERNITY - Systems Behavior Advisory, Palestine

Born orphan. Right after birth, his mother passed away. Nurtured by another mother of the same tongue (Arabic), and living at the countryside (a Bedouin), the prophet Mohammad PBUH (Peace Be upon Him), was consequently taken care of by his grandfather and uncle. Mohammad PBUH gifted with the Quran for Humanity, and the messenger of Islam, said: 'Ever new born is born with instinct (a close translation to 'Fitra' in Arabic). The parents either raise him to be a Jew, a Christian, or a Buddhist'. This paper purpose focuses on the identification of instinct and its relevance to the belief system the prophet of this proverb came up with; Islam. Islam, a name of a belief system derived from the Arabic term 'Salam' – peace in English – and means ascending to 'Allah'. In this paper, Islam resembles 'the methodology' for maintenance of the state of instinct. Quran is the curriculum, and the set of teachings is the pedagogy. This early childhood experience evolving in a prophet, whose duty was to deliver a module for building prosper communities, is the drive of this study. This paper is displaying in a dedicated research those standardized practices for nowadays' prosper lifestyle, especially, while noticeable is the result of incongruities by today's followers of this naturally conceived comprehensive belief system comprising a transparent curriculum and methodology. Research methodology of this paper is the researcher's property and complies with the top international best practices of relevance.

**44942**

**Power-Dependence in Domestic Politics and Interdependence, Balance of Power and Soft Law in Diplomacy, Comparison of Bureaucracy in the History between the US, UK, EU and Japan**

Yoshihiro Nagata, Nagoya University, Japan

This paper investigates Power-Dependence in Domestic Politics and Interdependence, Balance of Power and Soft Law in Diplomacy, Comparison of Bureaucracy in the History between the US., UK., EU and Japan. This paper consists of four parts. First, this paper investigates the similarity and common factors of Power-dependence in Domestic Politics and Interdependence in Diplomacy. I consider the power-dependence theory in intergovernmental relations by Rhodes and the interdependence theory in international relations by Nye and Keohane have similarity and common factors. Second, this paper investigates the Bureaucracy of Power-Dependence. In Japan, the Bureaucracy and Government coordinate the politicians, interest groups and local government. On the other hand, Bureaucracy and Government have conflicted to take initiative of politics. This paper investigates the cooperation and conflict between bureaucrats and government in Liberal Democratic Party and Democratic Party in Japan. Third, this paper investigates the Soft Law and Balance of Power in U.S., U.K., EU and Japan focusing on the Bureaucracy and Government of Power-Dependence, and Interdependence in Diplomacy. The diplomacy of United States, United Kingdom and European Union is influenced by the Balance of Power and Collective Security. This paper investigates how the balance of power influences the diplomacy. Finally, in Japan, Bureaucracy and Official Residence have cooperated and fought to take initiative and leadership. This paper investigates the history of Bureaucracy between the US, UK, EU and Japan.

**44994**

**Research as Assessment for Learning vs Assessment of Learning at Higher Education**

Dennis Zami Atibuni, University of Johannesburg, South Africa

At higher education, students are terminally assessed through a research output that demonstrates their originality, creativity, innovativeness, and contribution to knowledge and problem solving in society. However, the assessment process, unlike the traditional pencil-and-paper and other performance assessments which are thoroughly proctored by the examiner, is one that is loosely structured. Depending

on whether the student engrosses in undertaking research as an assessment by mastery orientation or performance orientation or both will determine whether the research process serves as an assessment for learning rather than assessment of learning. In this article it is argued using a critical review of literature that higher education students who use mastery orientation to research will pursue a deep learning of both the theoretical and practical demands of their research, in which case what is learned is enduring. Hence research as a terminal assessment will serve as an assessment for learning. On the other hand, students engaged in research through performance orientation are likely to engage in surface learning of taking ethical shortcuts in the pursuit and just wanting the work done, presented, and passed. In this case, what is learned from the research process is not enduring, and hence the process serves as assessment of learning for a short while. It is recommended among others that institutional policies and faculty practices on research conduct should engender deep learning through mastery orientation as opposed to surface learning through performance orientation so as to foster research as an assessment for learning rather than assessment of learning.

**45008**

**Survival vs Traditions: How Georgia Fights Against Economical Crisis – the Economical Issues of the 21st Century Family**

Ia Beridze, Penn State University, United States

Guli Shervashidze, State University of Batumi, Georgia

Georgia is identified for its national historical culture where gender balance was always playing a significant role in formation of the entire society. This paper presents findings how Georgian nation makes choices in the way and process of survival of its soul within our global community through immigration and how a female part undertook the responsibility for fixing the family's economical crisis, switching the family supporting role of male to female. We compare and analyze the recent statistics collected on Georgian immigrants around the globe. The results exhibit that a female immigrant is better fighter, and suitable for a new environmental atmosphere than a male one. Gender balance was always recognized as a key in building the Georgian society. Both academic and practical observations proved that female workers have been increasing over the past few decades. Recent research shows that immigrants focus on the positive side of corporate social issues management, explaining why and how a family put responsibilities on female activities and how such engagement influences on Georgian culture. In this study, we focus on Georgian economical reality and explore the ways how family chooses the further responsibilities based on gender in the economical fight. We discuss the implications of our findings and the contributions of this study to the research based on our case study, which illustrates the challenges of our research on the Georgian community in the United States.

**45107**

**A Study of Early Childhood Teachers' STEM Pedagogical Strategies: Select, Adapt, Contextualize, and Integrate**

Esther Ntuli, Idaho State University, United States

Research indicates that early exposure and experience with STEM has positive impacts across the entire spectrum of learning (McClure et. al., 2017). Research in child development shows that rich learning experiences during sensitive periods have a lasting positive impact on young children's future academic success. For instance, early math knowledge not only predict later success, it also predicts later reading achievement (National Research Council, 2012). Early experiences with science develop children's 'social meanings about science as a distinct academic domain that comprises its own disciplinary content, language, and processes' (Matzicopoulos, Samarapungavan & Patrick, 2009, p. 312). Despite these powerful findings, elementary schools and early childhood programs often lack knowledge, resources, time, and capacity to focus on early STEM learning in developmentally appropriate ways (Office of Innovation & Improvement, 2017, McClure et. al., 2017). The purpose of study was to examine early childhood teachers' pedagogical practices related to integrating STEM in the classroom. Early childhood in this study is defined

as zero to eight years. The research was guided by the following questions: How do early childhood education (ECE) teachers integrate STEM in the classrooms? How do ECE teachers select, adapt, and contextualize STEM activities and resources? What are the current barriers to STEM integration in the classroom? An explanatory mixed method design was used, whereby quantitative data were collected and analyzed in phase one, followed by a second phase of qualitative data collection and analysis (Creswell, 2013).

**45141**

**Promoting Reflective Learning to Develop Learner Autonomy**

Jehan Cruz, Kyoto University of Foreign Studies, Japan

The development of reflective abilities to enhance learners' awareness of the learning process has been linked to autonomy (Little, 1991; Holec, 1981). This presentation shall discuss a pilot study of how reflective learning has been incorporated as part of classroom practice to assist beginning Japanese university students make the transition from teacher dependence to more self-directed learning. The study is being conducted in response to the need to provide opportunities for learners to develop a level of reflection, as most language teaching situations do not create enough opportunities for this. This research is fundamentally based on the belief that learning is effective when people become personally engaged in the learning process and engagement takes place when there is a need to learn (Boyd & Fales, 1983). A range of classroom activities and assessments have been selected and created to help students "reflect-in-action" and "reflect-on-action" (Schon, 1983) to engage and promote the language learning process. Learners are given guided questions to help them reflect on what work they have done which they log in their journals. The study so far has shown students become more aware of their learning behaviour and develop more specific learning goals, however, the challenges for the practicing teacher is how to help students reflect more critically on themselves and how to provide individualised support to students. Finally, the study also has shown challenges on how to regulate autonomy in line with the Japanese educational context.

## Virtual Presentations

**43210**

**Assessing Barriers to the Diffusion of Net-Zero Homes: Consumer Response to the Solarhouse Demonstration Project**

Philip Walsh, Ryerson University, Canada

Buildings are responsible for a significant proportion of the total energy and carbon emissions worldwide and as such the building sector can be integral to the implementation of sustainable development strategies. One of those strategies is encouraging the construction of net-zero energy buildings and residential houses. Data was gathered from attendees of the 2017 Expo for Design, Innovation, and Technology in Toronto, Canada who visited a demonstration net-zero energy home at the Expo, and subjected to multivariate correlation and regression in order to provide some insight on the relative influence of certain barriers to the adoption of the net-zero housing technology. Our results suggest that cost, knowledge, and social compatibility barriers that might limit the diffusion of this housing innovation can be overcome if consumers are provided the opportunity to experience the construction and design quality of a net-zero house. However, addressing knowledge barriers remains important in reducing sensitivities to the extra investment cost of a net-zero house when compared with conventional housing. The findings of this study present implications for the housing industry in developing sustainable housing.

**43468**

**Basic Research and Ethical Inquiry for EFL Students: Implementation and Reflection**

Michael Houston Brown, Kanda Institute of Foreign Languages, Japan

Ethical inquiry and reasoning are essential types of critical thinking. Developing and understanding research skills are necessary components of a university education. This presentation will detail the rationale, design, implementation, and instructor reflection of an integrated research skills, ethical inquiry, and essay writing unit in an undergraduate, low to low-intermediate proficiency, English as a Foreign Language (EFL) university course in Japan. The rationale will be discussed in terms of why ethics and research skills should be introduced, even with lower proficiency students, and why ethics and research skills may be an effective language learning combination for EFL students. The design will be discussed in terms of unit planning and intended outcomes, as well as how to structure the introduction of ethics in an appropriate fashion that does not tell students what to think, but rather allows space for students to use their own powers of reasoning. The implementation will be discussed in terms of classroom and pedagogical choices that make the unit accessible and meaningful for students. The instructor reflection will be discussed in terms of perceived outcomes, feedback, challenges, and ideas for future units. Overall, the presentation will describe a flexible student research unit that provides opportunities for meaningful target language use and can be modified for a wide variety of teaching and learning contexts.

**44440**

**Endangered Cultures: The Tacit Wisdom of the Past**

Ismat Hossain, North South University, Bangladesh

Bangladesh has a wealth of indigenous communities and ethnic groups scattered across its geographical territory. More than twenty seven different peoples and cultures have been identified each with its rich and diverse cultural practices. Having been marginalized both in terms of authority and connectivity, these people are in most cases deprived from the mainstream infrastructural and technological advancements. However this remoteness from conventional development has also given them the opportunity to sustain and reinforce their irrevocable interrelationship with their surroundings. One such example is the 'Tripuri'



people that inhabit the fringes of Rema-Kalenga Wildlife Sanctuary, a protected forest and wildlife sanctuary in Bangladesh. The "Tripuri" people, who have been living here for many generations, are interdependent on the forest ecology for their subsistence in countless ways. The Sanctuary thrives on a wide range of bio-diversity and is home to many rare and endangered species of plants, birds and animals. Due to lack of proper governance and inconsiderate development activities the future of the forest and its inhabitants is under constant threat. Much like the forest the people there, too, have a culture that is constantly intimidated by the ostentatious temptations of progress. The ancient wisdom and ways of the Tripuri people is a valuable storehouse of information and insight into the bio-network of the forest and its ecological context. Losing their ways and customs could cause irreversible loss of the collective and accumulated experience that these people have acquired over time.

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