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Conference Venue

Hotel Royal

https://www.hotelroyal.com.sg/about.html

5 minute drive to Orchard Road, shopping and entertainment paradise of Singapore. Within walking distance to 2 MRT stations (subway/underground, especially Novena MRT). Stone's throw from Newton Food Centre, where you can get excellent local food at very reasonable prices. Easy access to the National University of Singapore, Nanyang Technological University and Singapore Management University. Minutes away from Little India in Serangoon Road.

Address: 36 Newton Road Singapore 307964
Tel: +65 64260168
Contact E-mail: benjamin@hotelroyal.com.sg
Introductions for Keynote Speakers

Prof. Maode Ma
Nanyang Technological University, Singapore

Dr. Maode Ma received his Ph.D. degree in computer science from Hong Kong University of Science and Technology in 1999. Now, Dr. Ma is an Associate Professor in the School of Electrical and Electronic Engineering at Nanyang Technological University in Singapore. He has extensive research interests including network security and wireless networking. Dr. Ma has more than 320 international academic publications including over 150 journal papers and more than 170 conference papers. He has delivered about 50 keynote speeches at various international conferences. He has served as conference chairs for over 80 international conferences. He currently serves as the Editor-in-Chief of International Journal of Computer and Communication Engineering and International Journal of Electronic Transport. He also serves as a Senior Editor or an Associate Editor for other 5 international academic journals. Dr. Ma is a Fellow of IET, a Senior Member of IEEE Communication Society and IEEE Education Society, and a Member of ACM. He is the Chair of the IEEE Education Society, Singapore Chapter and the Chair of the ACM, Singapore Chapter. He is serving as an IEEE Communication Society Distinguished Lecturer.

Title: Design of an Efficient Authentication Framework over Heterogeneous Vehicular Networks

Abstract: Recently, the use of 4G wireless network to support vehicular applications has attracted more and more research attentions. Although some applications have been proposed to support traffic safety and transportation efficiency using Long Term Evolution (LTE) techniques, the security issues of the integration of LTE into the vehicular environments have been less addressed. In this talk, I will address the security issues of the VANETs with an introduction of a security framework over public transport based heterogeneous wireless vehicular networks to face the challenges of malicious attacks in vehicular environments efficiently. The security of the proposed solution has been analysed and the logic correctness of the proposed solution has been proved by formal logic. Besides, performance evaluation shows that the proposed authentication framework can efficiently reduce authentication time and number of hops during message relay by sharing key information.
Lim, Cheolil is chair and professor of department of education and director of education research institute at Seoul National University. He is the president of Korean Society for Educational Technology and the vice president of the Academy of Creativity. Prof. Lim worked as Associate dean of Educational affairs, and Director of Center for Teaching and Learning at Seoul National University. He earned his Ph.D in educational technology at Indiana University. His recent research interests are focused on innovations in higher education such as flipped learning, MOOCs, and mobile learning. His research expertise include instructional systems design, interactive learning environments design, and interface design.

**Title: Next Generation e-Learning Platform for Learning Activity Design**

**Abstract:** The paradigm of education is changing from instruction based on content delivery to learning which emphasizes learner's participation and activities. It implies that learning will be shifted to the direction of supporting and promoting learning activities of learners. For instance, various learning activities in MOOCs are available via the design and management of exercises, assignments, exams, etc., which makes them exceed the level of OCW having the function of sharing learning materials. In recent years, e-learning platforms have been emphasized as a more macroscopic form including contents management systems as well as learning activities. This speech will present the following results in the viewpoint of e-learning platform for learning design activities. First, previous literatures about e-learning/MOOC platforms, LMS functions, and e-learning solutions were reviewed to derive overall features of the next generation e-learning platform. Second, case analysis of MOOC and platform reflecting conceptual characteristics of learning design were conducted. By analyzing Blackboard, Moodle, and Canvas that have been the most actively utilized in the colleges, the main functions and features were identified. Finally, the selective e-learning platform functions for learning design have been derived, and future directions will be discussed.
Prof. Shun Wing NG  
Hong Kong Institute of Education, Hong Kong

Prof. Ng Shun Wing is now the Adjunct Professor of the Department of Education Policy and Leadership (EPL) at the Education University of Hong Kong. He has just retired from the post of the Head of Department of EPL. He graduated from the Chinese University of Hong Kong with Sociology as his major and Economics, his minor. He completed his Master Degree at the University of Nottingham and received his PhD at the University of Exeter in the United Kingdom. He had been the Head of Social Studies Department in a secondary school for seven years prior to embarking on his teacher training career. He has joined the Education University since 1995. He has been the Coordinator of the Master and Doctorate programmes in the Department. He was also the Programme Leader of the training programmes for aspiring, newly appointed and experienced principals. He has been working collaboratively with the Hong Kong Education Bureau, Work Bank, University of Macau and many universities in the Chinese Mainland to organize various types of continuous professional development programmes for principals and teachers. Prof. Ng’s research interests include sociology of education, parental involvement in education, school management and leadership, education policy and change, higher education, citizenship education, etc. Prof. Ng has published several books, a lot of book chapters and refereed articles in international journals regarding parental involvement, school leadership and reforms, citizenship education and higher education. He is particularly interested in promoting and researching parental involvement in school education. His article entitled Rethinking the Mission of Internationalization of Higher Education in Asia-Pacific Region published in the journal of Compare was awarded the “Annual IISE Best Article Award 2013” by the Institute for International Studies in Education (IISE) of the University of Pittsburgh. He has been invited for keynote delivery in many seminars by overseas universities, as reviewer by many editors of international journals and as examiner of doctorate theses by many universities. Due to his interest in education policies, he has always been invited by the media for interviews and has been writing more than a hundred pieces of education commentaries in newspapers in Hong Kong.

**Title:** The Micro-Politics of Parental Involvement in School Education: Ethnocentrism, Utilitarianism or Policy Rhetoric!  
**Abstract:** In the era of 2000s, the wave of education reforms has focused on the provision of quality education where the concern about school accountability to various stakeholders is of paramount importance. This accountability orientation conveys the notion that parents play a significant role in school-based management. Thus parental involvement becomes one of the prime focuses in the current education reform movement. Particularly in Hong Kong, specific instructions for involving parents at
various levels of school education have been spelled out in many governmental policy documents. Home-school partnerships have been developed because parent representatives have eventually been allowed to participate in managing schools through legislation. The purposes of this presentation are (1) to report on an interpretive and exploratory study designed to illuminate the micro-politics arising from increased parental involvement in school education and (2) to theorize home-school relationships emerging in two case study schools of this qualitative research. Three propositions of power relations between parents and teaching professionals emerge. It concludes that at the initial stage of parental involvement in school operation, the attitude of “ethnocentrism” towards parents prevails among teachers. The notion of “utilitarianism” dominates the second stage of parental involvement where parents are being treated as instruments of school initiatives. Lastly while parents are encouraged to be involved in managing school, their managerial roles are sometimes marginalized by the school sponsoring body and the notion of “parents-as-school-governors” is of “policy rhetoric” in the era emphasizing accountability. The finding of this study does not attempt to come to any generalization but is expected to contribute to illuminative and interpretive analysis of the phenomenon of parental involvement investigated.
Plenary Speaker

Assoc. Prof. Kazumasa Mori
Bunkyo University, Japan

Kazumasa Mori is an associate professor in the faculty of business administration at Bunkyo University. He received a PhD in multisciences from the University of Tokyo for educational measurement and related mathematical statistics. He engages in the evaluation of academic curriculums, focusing on the effects of newly organized courses at the university, such as online English courses and debate courses. His interest is evaluation of statistical model related educational measurement like item response theory model. He also has career in marketing and business planning at NTT DATA.

Title: Improvements of validity with Bayes-LINEX estimation in the item response theory model

Abstract: In this study, we proposed simple Bayes estimation of item response model (IRT) under asymmetric loss and improved validity of estimates of ability in educational test data. More precisely, using MCMC method, we proposed simple Bayesian estimator of Rasch model under LINEX loss. (Varian, 1975) We call this estimation as simple Bayes-LINEX estimation (BLE). The BLE was applied to total dataset of literacy for adults (Daryl, 2013) and we found that estimates of ability parameter with the simple BLE showed better validity than the estimates with conventional Bayesian estimation. We concluded that our simple BLE is suitable solution for the educational test data in respect to validity.
Instructions for on-site Registration

(1) Please print your registration form before you come to the conference.
(2) You can also register at any time during the conference.
(3) Certificate of Participation can be collected at the registration counter.
(4) Your paper ID will be required for the registration.
(5) The organizer won't provide accommodation, and we suggest you make an early reservation.

Instructions for Oral Presentations

Devices Provided by the Conference Organizer:
Laptops (with MS-Office & Adobe Reader)
Projectors & Screens
Laser Sticks

Materials Provided by the Presenters:
Power Point or PDF Files (Files should be copied to the conference laptop at the beginning of each session)

Duration of each Presentation (Tentatively):
Regular Oral Presentation: about 15 Minutes of Presentation and Q&A
Keynote Speech: 40 Minutes of Presentation, 5 Minutes of Q&A

Instructions for Poster Presentation

Materials Provided by the Conference Organizer:
The place to put poster

Materials Provided by the Presenters:
Home-made Posters
Maximum poster size is A1
Load Capacity: Holds up to 0.5 kg

Best Presentation Award

One Best Oral Presentation will be selected from each presentation session, and the Certificate for Best Oral Presentation will be awarded at the end of each session on July 10, 2017

Dress Code

Please wear formal clothes or national representative clothing.

Important Note:

The time slots assigned in the schedule are only tentative. Presenters are recommended to stay for the whole session in case of any absence.
Introductions for Publications

All accepted papers for the Paris conferences will be published in those journals below.

2017 International Conference on Education and Multimedia Technology (ICEMT 2017)

International Conference Proceedings Series by ACM, which will be archived in the ACM Digital Library, and indexed by Ei Compendex and submitted to be reviewed by Scopus and Thomson Reuters Conference Proceedings Citation Index (ISI Web of Science)

ISSN: 2010-3654
DOI: 10.17706/IJEEEEE
Indexed by: Engineering & Technology Digital Library, Google Scholar, Electronic Journals Library, QUALIS, ProQuest, EI (INSPEC, IET)


International Journal of Information and Education Technology (IJIET)
ISSN: 2010-3689
DOI: 10.18178/IJIET
Indexed by: EI (INSPEC, IET), Electronic Journals Library, Google Scholar, Crossref and ProQuest

International Journal of Learning and Teaching (JLT)
ISSN: 2377-2891(Print); 2377-2905(Online)
DOI: 10.18178/ijlt
Indexed by: Google Scholar; Crossref; Engineering & Technology Digital Library; etc.
# Conference Time Schedule

## Day 1: Registration Only

<table>
<thead>
<tr>
<th>Lobby</th>
<th>July 9 10:00-17:00</th>
<th>Registration &amp; Conference materials collection</th>
</tr>
</thead>
</table>

## Day 2: Conference

### Royal Room 1. (Level 3)

| July 10 09:00-12:20 | 09:00-09:05 | Opening Remarks  
Prof. Maode Ma  
Nanyang Technological University, Singapore |
|-----------------|------------|------------------------------------------------|
| July 10 10:05-10:50 | 09:05-09:50 | Keynote Speech 1  
Prof. LIM, Cheolil  
Seoul National University, South Korea  
Title: Next Generation e-Learning Platform for Learning Activity Design |
| July 10 10:50-11:35 | 10:05-10:50 | Keynote Speech 2  
Prof. Shun Wing_NG  
Hong Kong Institute of Education, Hong Kong  
Title: The Micro-Politics of Parental Involvement in School Education: Ethnocentrism, Utilitarianism or Policy Rhetoric! |
Prof. Maode Ma  
Nanyang Technological University, Singapore  
Title: Design of an Efficient Authentication Framework over Heterogeneous Vehicular Networks |

### Plenary Speaker

| June 10 11:35-12:20 | 11:35-12:20 | Plenary Speaker  
Assoc. Prof. Kazumasa Mori  
Bunkyo University, Japan  
Title: Improvements of validity with Bayes-LINEX estimation in the item response theory model |

### Lunch

<table>
<thead>
<tr>
<th>Royal Room 1. (Level 3)</th>
<th>July 10 13:30-17:45</th>
<th>July 10 18:30-21:00</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Session 1 (8 papers)</strong></td>
<td>13:30-15:30 Theme: E-Education and E-Learning Session Chair: <strong>Dr. Bob Barrett</strong></td>
<td>Dinner Banquet</td>
</tr>
<tr>
<td><strong>Session 2 (7 papers)</strong></td>
<td>15:30-16:00 Coffee Break</td>
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<tr>
<td><strong>Session 2</strong></td>
<td>16:00-17:45 Theme: Innovative Education and Education Management Session Chair: <strong>Prof. Shun Wing NG</strong></td>
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</tbody>
</table>
Authors’ Presentations Review

Session 1: E-Education and E-Learning

MF0001-A: Technology to Monitor, Mentor, and Motivate Today’s Online Adult Learners

Bob Barrett

MF0015: Differences in the Rookie Animation Elements between Taiwan and Japan: A Case Study of College Student Groups with Different Lifestyles

Cheng-Yong Huang

MF0010: The Effects of Interactive Music and Bubble Feedback using Arduino on Enhancing Physical Activities for Children with Cerebral Palsy

Chien-Yu Lin, Wei-Jen Chen, and Chien-Chi Lin

MF0012: Developing Web-based Lessons to Improve Khon Kaen University Graduate Students’ Reading Skills

Theptewan Duangdee and Poranee Deerajviset

MF1007: Automatic Generation of Plot for Education by Teacher–Student Dialogue Style

Hironori Ito, Yasuhito Asano, and Masatoshi Yoshikawa

MF0002-A: Open Source, Interactive, and Mobile Friendly Design in an Online Physics Course

Farook Al-Shamali and Martin Connors

MF1008: Making an Animation of Overhead Spending to Inspire Undergraduates' Financial Management Concept

Ting-Sheng Weng, Meng-Hui Hsu, Chien-Kuo Li, and Der-Ching Yang

MF0014-A: Roxifyonline.com: an Automated Essay Feedback System

Roxanne S. Miller and George A. Miller

Session 2: Innovative Education and Education Management

MF0008-A: Non-Science Major Undergraduates’ Understandings of Chemical Compounds and Their Risks Perceptions on Environmental Sustainability Issues in Taiwan

Show-Yu Lin

MF1006-A: Discourse Segment Clustering with Word Embedding based on Formulaic Sequences for Language Education

Hajime Mochizuki and Kohji Shibano

TS0002: Open Educational Resources and University Social Responsibility Practices among Thailand’s Higher Education Institutional Management

Shu-Hsiang Chen, Jaitip Nasongkhla, and J. Ana Donaldson
TS0003: Developing an Informal Science Education Activity based on Edmodo
   Qiusha Min, Guanghui Wu and Neng Liu

TS2001: The VARK Learning Style of the University Student in Computer Course
   Veena Khongpit, Krich Sintanakul and Thanyarat Nomphonkrang

TS2002: A Synthesis of a Model for enhance Creative Thinking using Problem-based Learning and Pairs Learning Method with Scaffolding System via Computer Network
   Jittima Panyapisit and Monchai Tiantong

TS3001: Developing Student Driven Learning: Impact on Knowledge and Attitude
   A. Vyas, C.W. Leung and W.O. Wong
**Authors’ Presentations (July 10, 2017)**

**Session 1**

13:30-15:30  
Venue: Royal Room 1. (Level 3)  
Theme: E-Education and E-Learning  
Session Chair: Dr. Bob Barrett  
Affiliation: American Public University, USA

<table>
<thead>
<tr>
<th>ID</th>
<th>Title+ Author’s Name</th>
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<tbody>
<tr>
<td>MF0001-A</td>
<td>Technology to Monitor, Mentor, and Motivate Today’s Online Adult Learners</td>
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| 13:30-13:45 | **Bob Barrett**  
American Public University, USA |

**Abstract:** Online courses require more discipline and time management skills for today’s adult learner. However, it has been observed by instructors that many students are returning back to education in order to obtain more education or training to compete in their current work environment or in another field. On the other hand, many of these returning adult learners have been out of school for a number of years and may need additional coaching or mentoring to help guide them and develop better time management skills with this new type of learning environment.

While students try to navigate with the new type of technology in the online learning environment, referred to as the learning management system, they also need to relearn study habits, time management skills, rearrange their current schedule with family and business appointments and requirements, and learn how to interact differently in the online learning world. However, for some students this might require more monitoring from the educator, who is in charge of learning for all learners and meeting the learning objectives for the content knowledge to be achieved in the course.

One specific software package being utilized by Blackboard users is INSPIRE, which works as a data analytics software to help assist the instructor as to learners who may not be participating in the course or submitting work on a timely manner. This paper will focus on this software and its importance with today’s online learners and the instructor. Namely, a key emphasis will be on the reporting mechanism with INSPIRE and how instructors are using it to monitor, mentor, and motivate adult learners in a more positive way and explain how the software is helping to improve classroom retention rates.

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<tr>
<th>ID</th>
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<tr>
<td>MF0015</td>
<td>Differences in the Rookie Animation Elements between Taiwan and Japan: A Case Study of College Student Groups with Different Lifestyles</td>
</tr>
</tbody>
</table>
| 13:45-14:00 | **Cheng-Yong Huang**  
National Dong Hwa University, Taiwan |

**Abstract:** Using 10 rookie animated works from Taiwan and Japan, this study understands the differences in the rookie animated works from perspective college students in Taiwan who are fond of animation. In terms of lifestyle, this study adopts factory analysis to downsize the components...
from the original 16 AIO questions into 4 components, including planning, fashion, learning and animation; In addition, this study adopts K-mean clustering to divide the respondents into four groups, including cool boys, indoor boys, bookworm and fashionable boys. The evaluation of animation elements consisted of seven items, including story, style, character, scenario, dynamics, storyboard and sound which are then subjected to multiple-variable statistical analysis. The results tell us that there are statistically significant differences in four items aside from styles, such as story, character, dynamics and storyboard. The statistical results show that respondents with different lifestyles generate a different evaluation of animation elements.

| MF0010 | 14:00-14:15 | The Effects of Interactive Music and Bubble Feedback using Arduino on Enhancing Physical Activities for Children with Cerebral Palsy  
**Chien-Yu Lin**, Wei-Jen Chen, and Chien-Chi Lin  
National University of Tainan, Taiwan  

*Abstract:* This study uses an interactive music and bubble effect in Arduino to enhance the body strength of children with cerebral palsy. Arduino, using a servo motor and mp3 module function, creates real feedback. This study uses a force-sensitive resistor and laser tripwire circuit sensor transmit as the interactive interface, to enhance the performance and real activity of children with cerebral palsy to perform on physical activities. This study uses a single-case research using an ABAB structure, in which A is the baseline and B is the intervention. The experimental period was 3 months, from March to June 2016. The experimental results demonstrated that the scores for two children with cerebral palsy increased considerably during the intervention phrases. The relative developmental applications of these results are also discussed here.

| MF0012 | 14:15-14:30 | Developing Web-based Lessons to Improve Khon Kaen University Graduate Students’ Reading Skills  
**Theptewan Duangdee** and Poranee Deerajviset  
Khon Kaen University, Thailand  

*Abstract:* The aims of this study were to examine Khon Kaen University graduate students’ reading skills after learning via web-based lessons and to investigate the attitudes of Khon Kaen University graduate students toward learning via web-based lessons to improve their reading skills. The participants were 63 graduate students who enrolled in Reading in English for Graduate Students course in the first semester of academic year 2016. The instruments used in this study were 1) the pretest and the posttest, 2) web-based lessons, 3) the questionnaire, and 4) the interview. The research findings revealed that the mean score of the posttest was significantly higher than the pretest which means that students’ reading skills were significantly increased at 0.05 level after learning via web-based lessons (t-Test = 10.417). Moreover, the average mean scores of web-based exercises were considered as high level (M = 74.68, S.D. = 8.56). According to the analysis from the questionnaire, the results showed that students’ attitudes toward learning via web-based lessons were at a high level (M = 4.03, S.D. = 0.71). From the interview, students stated that web-based lessons are effective tools to learn and they found that it is fun to learn via web-based lessons. Students also suggested that web-based lessons should be integrated with other English skills.
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<th>Session</th>
<th>Title</th>
<th>Authors</th>
<th>Institution</th>
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<tr>
<td>MF1007</td>
<td>Automatic Generation of Plot for Education by Teacher–Student Dialogue Style</td>
<td><strong>Hironori Ito</strong>, Yasuhiyo Asano, and Masatoshi Yoshikawa</td>
<td>Kyoto University, Japan</td>
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<td></td>
<td><strong>Abstract:</strong> As described in this paper, we propose a method to generate plots automatically for educational Manga by teacher–student dialogue style using XML documents, such as PowerPointTM documents and Web pages, as input. Educational Manga explain knowledge in various fields using expression of Manga. It is recognized that it has high learning effects because of the strength of its impressions, including people to enjoy learning, and so on. However, it is generally difficult to create educational Manga. Therefore, as a support for educational Manga creation, we propose a method to generate plots corresponding to XML documents. Additionally, we adopt teacher–student dialogue style because it is commonly used in educational Manga for ease of understanding and remembering, and for other reasons.</td>
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<td>MF0002-A</td>
<td>Open Source, Interactive, and Mobile Friendly Design in an Online Physics Course</td>
<td><strong>Farook Al-Shamali</strong> and Martin Connors</td>
<td>Athabasca University, Canada</td>
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<tr>
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<td><strong>Abstract:</strong> PHYS 200 is an introductory algebra-based course offered online at Athabasca University (AU), Alberta, Canada. We recently revised the course based on the OpenStax College Physics e-textbook, which is an open source material licensed under Creative Commons. The project produced self-contained study material by merging relevant sections of the textbook with the locally developed Study Guide, Lab Manual, and Assignment Manual. Study material appears online in html code and uses the MathJax JavaScript platform, which combines the accessibility of html and the beauty of LaTeX mathematical equations. An important feature is the inclusion of interactive activities developed using the dynamic capabilities of Mathematica. This is in addition to the free simulations of the PhET Project. Students are able to interact with objects moving in real time and appreciate the relationship between position, velocity and acceleration. The course website has a responsive design, which makes it mobile friendly. The home lab manual allows students to do full (and quality) lab experiments at home using personal smartphones, in addition to some common household items. Motion experiments employ video analysis using the open source Tracker software.</td>
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<tr>
<td>MF1008</td>
<td>Making an Animation of Overhead Spending to Inspire Undergraduates' Financial Management Concept</td>
<td><strong>Ting-Sheng Weng</strong>, Meng-Hui Hsu, Chien-Kuo LI, and Der-Ching Yang</td>
<td>National Chiayi University, Taiwan</td>
</tr>
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<td></td>
<td><strong>Abstract:</strong> The average undergraduate does not specifically calculate the total tuition or miscellaneous fees spent during their four-year study at university. Besides tuition and miscellaneous fees, few undergraduates record their basic living expenses or additional expenses, resulting in some unnecessary expenses. Using multimedia animation about expenditures during the four-year study at university, this study employed an interesting and creative way to allow undergraduates to learn their total expenditures and recall additional expenses during a four-year</td>
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</table>
study program at university, understand financial management in daily life, perceive the hardship that their parents have endured to pay their tuition and living expenses, and learn to cherish their hard-earned money. Wealth management and mathematical thinking have multiplied effects. When learning to apply mathematical thinking to one’s financial management, the learner can accumulate more wealth faster. The students finished their animation homework regarding their expenditures during the four-year study program at university, and observed those of other groups. Many students reflected upon the hardship of their parents, learned of conflicts between income and expenditures, and stressed rational and emotional life expenses. This study guided students to learn more multimedia animation technologies, and directly educated the students to understand and appreciate the devotion of their parents in order to develop the correct concepts for planning and improving management abilities of personal financial management.

Roxifyonline.com: an Automated Essay Feedback System
Roxanne S. Miller and George A. Miller
City University of Hong Kong/University of Jyväskylä
Roxifyonline.com

Abstract: Feedback on student’s writing is an important part of the EFL learning context. In order for it to be effective, it should be immediate and useful to the student (Alderson, 2005; Hyland, 2006). Instructors are often overwhelmed by the amount of marking that is required. Students want feedback and teachers feel obliged to provide it (Wen, 2013; Leki, 1991; Radecki, 1988). Instructors’ at the English Language Center of City University, Hong Kong are required to teach five classes of 25 students each semester. In 2016, the courses changed from 72 hours a semester to 39 hours without any reduction in the course material. The students in the course are required to write three drafts of a 750 to 1000-word process essay. Because of the excessive amount of marking required, the researcher designed a program for automated essay feedback (Roxifyonline.com) to compensate for these changes and to lighten the instructor marking load. As the focus of Roxifyonline is vocabulary usage, this allows teachers to focus on other aspects such as structure, organization, and style (Ferris, 2003; Hyland, 2006; Zamel, 1985)

The system itself looks at a variety of language features required for academic writing. These include the usage of the AWL (Academic Word List), cohesive devices, key vocabulary taken from source texts, number of duplicated words, pronoun usage, inclusion of sources, and use of clichés. Student opinions of the program will be presented as well as a short demo on the program for teachers to use in their own classrooms.
ID | Title + Author’s Name
--- | ---
MF0008-A 16:00-16:15 | Non-Science Major Undergraduates’ Understandings of Chemical Compounds and Their Risks Perceptions on Environmental Sustainability Issues in Taiwan
Show-Yu Lin
Aletheia University, Taiwan

Abstract: The purpose of this study is to explore non-science major undergraduates’ understandings of chemical compounds and their risks perceptions on environmental sustainability issues in Taiwan. The participants were 51 non-science major undergraduates. The instruments were the achievement test, and the questionnaire of chemical compounds understandings and risks perceptions on three dimensions of environmental sustainability issues, including environmental pollution, natural disaster, and resources and ecology. Descriptive statistic and inference statistic were used for data analysis. The results displayed their performances and joyful of studying natural sciences. The highest risk issues of environmental pollution, natural disaster, and resources and ecology individually were global warming, mudflows and landslides, and alien species. In general, the two lowest risk issues were desertification and tsunami. In regard to popular global environmental sustainability issues, we need to notice that their understandings of chemical compounds were good at carbon dioxide (100%) on global warming, CFCs (62.75%) on ozone depletion, and carbon dioxide (52.94%) and sulfur dioxide (49.10%) on acid rain, respectively; but they were poor at other chemical compounds on these three issues. The most popular resources of people, paper documents, electronic documents and activities were teachers, textbooks, internet, and lectures, separately. These resources were consistency on these three issues. Results in this study implicate that we may enhance their chemical literacy form teachers, textbooks, internet and lectures not only on these three environmental issues but also on other environmental sustainability issues.

MF1006-A 16:15-16:30 | Discourse Segment Clustering with Word Embedding based on Formulaic Sequences for Language Education
Hajime Mochizuki and Kohji Shibano
Tokyo University of Foreign Studies, Japan

Abstract: This presentation shows a clustering method to find similar short texts by using word embedding based on formulaic sequences instead of a simple word vector. We have been collecting closed caption TV (CCTV) corpus from December 2012 and as of February 2016, the size of our corpus has reached over 166,000 TV programs, over 65 million sentences. We aim to use the CCTV corpus for language learning application. In particular, we expect to use discourse segments
in the corpus as examples of dialogues in language education. In the previous research, we extracted over 18 million discourse segments, which average length is 3.8 sentences that is relatively short segment. In this presentation, we select segments expected to contribution for language education, and perform clustering to classify them into several categories by according to discourse contents of the segment clusters. In our clustering, each segment is represented by word embedding using Doc2vec. We use formulaic sequences that consists of multiple pragmatically related words instead of single words for calculating Doc2vec. We also will mention characteristics of clustered segments in view point of learning materials for language education.

<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Abstract</th>
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<tr>
<td>Open Educational Resources and University Social Responsibility Practices among Thailand’s Higher Education Institutional Management</td>
<td>Shu-Hsiang Chen, Jaitip Nasongkhla, and J. Ana Donaldson</td>
<td>Unequal access to higher education institutions (HEIs) on the basis of gender, economic and social status, location of residence, and inadequate prior schooling are all continuing to challenge many Asian nations. Open educational resources (OER) are one example of an innovative approach to educational technology which opens up opportunities to create, share, and facilitate teaching and learning. Embedding OER within University Social Responsibility (USR) is a key element for fostering transparency in educational learning processes, fulfilling higher education institutions (HEIs) social responsibility mission, and helping the establishment of a new sustainable development model for education. This study examined university managers’ opinions and attitudes toward current OER and USR practice, particularly focused on Thai HEIs systems. A paper-based survey was deployed to three Thai HEIs systems including: (1) the Universities System (US), (2) the Rajabhat Universities System (RUS), and (3) the Rajamangala Universities of Technology System (RUTS). Forty-four university managers participated in this study. The findings of this study provide benefits to scholars in the field of educational technology and university policy and administration, with regard to supporting existing educational strategy planning and perhaps moving educational policy development further along. Future research can be looked at from the differing angles of the growing OER and USR movements allowing for individual, institutional, and country-level contributions.</td>
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| Developing an Informal Science Education Activity based on Edmodo     | Qiusha Min, Guanghui Wu and Neng Liu                                   | With the fast development of science and technology, science education is becoming more and more important. However, traditional science education methods are not effective and seems to decline interest among young people for science study. This paper presents a new learning strategy for effective science learning. This strategy integrates an online learning platform, Edmodo, to provide abundant resources, convenient communications, and inquiry learning opportunities. Via Edmodo, science learning is not restricted within a museum or a school. Learners could read science articles, discuss with others and visit exhibitions online. The experimental results show that participants performance in science learning is significantly improved by the
informal science education activity based on Edmodo and most participants are satisfied with this science education strategy. Thus, this study may inspire museums or science education associations to integrate Edmodo into science education to improve the effectiveness of science learning.

**TS2001**

17:00-17:15

**The VARK Learning Style of the University Student in Computer Course**

**Veena Khongpit**, Krich Sintanakul and Thanyarat Nomphonkrang

King Mongkut’s University of Technology North Bangkok, Thailand

**Abstract**: The achievement of teaching and learning process doesn’t come solely from the teacher or supporting material. It requires the coordination and motivation of the learner as well. If the teacher realizes the ability of the learner and provide appropriate learning environment, the learner will be able learn in accordance with their skills and learning style. The VARK learning process can categorize the learner’s abilities in to 4 groups: 1) Visual (V), 2) Aural (A), 3) Read/Write (R) and 4) Kinesthetic (K). The learner will be able to learn from direct practice. When the learner has many learning options according to their potential, this will lead to motivation of learning.

**TS2002**

17:15-17:30

**A Synthesis of a Model for enhance Creative Thinking using Problem-based Learning and Pairs Learning Method with Scaffolding System via Computer Network**

**Jittima Panyapisit** and Monchai Tiantong

King Mongkut’s University of Technology North Bangkok, Thailand

**Abstract**: The objective of this research is to synthesize the model for enhancing creative thinking using the problem-based learning and pairs learning method with scaffolding system via computer network (PBLPSC) to be used in setting the model in developing the learning via computer network in Electronic Learning Development course for the students of Computer Education Program, Rajabhat Rajanagarindra University by using Focus Group Discussion from 13 experts in designing the learning model via computer network using the problem-based learning and pairs learning method for enhancing the potential or scaffolding and increasing the creative thinking to the learners. The research results reveal that the learning model of PBLPSC consists of 7 components; 1) Teacher Module, 2) Content Module, 3) Student Module, 4) PBLPS Learning Module, 5) Communication Module, 6) Creative Thinking & Activity Module, and 7) Assessment Module. The results of evaluation on the appropriateness of teaching style reveal that the experts admit the proposed teaching style at high level (Mean = 4.40, SD. = 0.68). It can be summarized that such model can be applied as the prototype in developing the learning model of PBLPSC further.

**TS3001**

17:30-17:45

**Developing Student Driven Learning: Impact on Knowledge and Attitude**

**A. Vyas**, C.W. Leung and W.O. Wong

The Hong Kong Polytechnic University, Hong Kong SAR

**Abstract**: It has been identified that some teaching strategies when applied encourage behavioral changes among students that will lead to better performance. Current teaching strategy in most engineering curricula is teacher-centered which gives scope to invent ways to enhance students learning by training them to self-consciously adopt behaviours that can generate excellent outcomes. The main objective of this study is to investigate if self-driven learning, within a course
format, can generate higher level of learning, motivation and attitude. In this view, the investigation was conducted on two levels. Firstly, students were given autonomy to self-select the laboratory work within the scope of the study in contrast to the traditional way where the laboratory work is assigned to the students by the lecturer. Secondly, in most cases students have little prior experience of the topics that are covered in the lecture thus, students were required to do pre-lecture reading on those specific topics to assess if it resulted in better understanding. Later, students submitted reading summaries on specific topics prior to the lecture and participated in quiz later on. The strategies executed were developing a multidimensional survey, that was run twice, that is pre-laboratory and post-laboratory to evaluate any measureable effect on student’s learning, motivation and self-efficacy. The results indicated a growth in self-efficacy and motivation and ability to perform task right from collection of data to interpretation and projecting application of knowledge. Pre- and post- survey data plugs at statistically significant margin in self-efficacy of students with p<0.03. In addition, pre-lecture reading led to a better understanding of the assigned topics which became evident by extensive questions, arguments taking place during the class. Survey of post- strategies also showed motivation and confidence in the subject resulting in median=5 out of 5 and mean=4.19. Additionally, evidence suggest boosting the quality of learning generates positive attitudes, higher levels of confidence and problem solving abilities. Survey results and classroom discussions also indicate that students can engage into more in-depth and need-based learning that can improve the overall quality of both learning and teaching.
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- campus information systems
- e-learning technologies, standards and systems
- Systems, Design and Technologies
- e-Learning platforms
- portals and Virtual learning environments
- Course design
- Emerging and best practices
- Business-to-business e-commerce
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- E-government, policy and law
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