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EASE 2013 Conference Reports

A Successful and Fruitful Conference of the East-Asian Association for Science Education (EASE) 2013, 4-6 July 2013 in Hong Kong



Demonstration of student project work



Dr. Yoyo Wong (Conference secretary) and student helpers



Workshop presentation

It was a great day on 4 July 2013 at the Hong Kong Institute of Education; there were teachers, educators, scholars and scientists from different parts of the world gathered at the opening ceremony of the EASE conference. This could not have been achieved without the concerted partnership of the co-organizers, who were comprised of scholars from China Mainland, Hong Kong, Japan, Korea, and Taiwan, etc., including the East-Asian Association for Science Education (EASE), the Hong Kong Institute of Education (HKIEd), the University of Hong Kong (HKU), the Chinese University of Hong Kong (CUHK) and the Hong Kong Association for Science and Mathematics Education (HKASM).

The EASE 2013 conference provided valuable opportunities for teachers, educators, scholars and scientists around the globe to discuss, share ideas, practices and recent developments in science education under the main theme of EASE 2013 “Building an International platform for exchange between scientists and science educators”. It was encouragingly well-received with 350 participants from 12 different regions. We could conclude that it was a success with 187 paper presentations, 120 poster presentations, 7 symposia, and 7 workshops in the three days in the different parallel sessions in order to accommodate the high number of presentations.

In addition, 10 world-renowned keynote/invited speakers were here to give insightful speeches on diverse topics. They are Prof. Reinders Duit (Emeritus Professor, University of Kiel, Germany), Prof. John Gilbert (Professor at King’s College London, U.K.), Prof. Jack Holbrook (Professor at University of Tartu, Estonia), Prof. Fu-Kwun Hwang (Professor at National Taiwan Normal University, Taiwan), Dr. Vanessa Kind (Senior lecturer at Durham University, U.K.), Prof. Enshan Liu (Professor at Beijing Normal University, Mainland China), Prof. XingKai Luo (Professor at Guangxi Normal University, Mainland China), Prof. Samuel Sun, (Professor at the Chinese University of Hong Kong, HK), Prof. Yu Wei (Professor at Southeast University, Mainland China) and Dr. Dana Zeidler (Professor at University of South Florida, USA).

To encourage the involvement of local communities, 16 exhibitors including publishing houses and technology companies were invited to display their recent publications and latest technologies, as well as student representatives from 6 local schools who shared their science projects and learning materials.

A number of awards were presented to those who made outstanding achievements in the conference. There were two recipients to the Young Scholar Award and two awardees for the Outstanding Paper Award. In addition, the EASE also presented the Distinguished Contribution Award to four exceptional science educators who have contributed to the field with great efforts in the past decades (more info, please refer to June Issue, 2013).

As the conference hosts, the Department of Science and Environmental Studies of the HKIEd would like to express our sincere gratitude to all participants for their contribution to and support for this fruitful conference in Hong Kong. We look forward to your continuous support of the EASE 2015 Conference in Beijing, and will see you all there.

Winnie Wing Mui SO (Professor)
Head, Department of Science and Environmental Studies,
The Hong Kong Institute of Education



Prof. Y.C. Cheng (Acting President of HKIEd) and Prof. Chi-jiu Lien (EASE President)



Distinguished contribution award presented by Prof. Chi-jiu Lien (EASE President)



Prof. Yu Wei (Keynote speaker) and Prof. May Cheng (Conference organizer)



Group photo for EASE Executive members, conference organizers and guest speakers



Prof. Yau-yuen Yeung (Conference organizer) and Prof. Dana Zeidler (Keynote speaker)



Prof. Winnie So (Conference organizer) and Dr. Rui Wei (Young scholar award)



Prof. Samuel S.M. Sun (Keynote speaker) and Dr. Alice Wong (Conference organizer)



Conference dinner held at the Science Park

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Profile of the New EASE President from 2014, Professor WANG Lei

Professor WANG Lei is the Chair of the Institute of Chemical Education and the Vice-Chair of the Institute of Curriculum and Instruction at Beijing Normal University, Beijing, Mainland China. She is also serving as the Vice-Director of Chemical Education Committee of Chinese Chemical Society, Executive Director of Chemistry Teaching Committee of Chinese Education Society, Associate Editor of *Chinese Journal of Chemical Education*, member of "Expert Committee on National Basic Education Curriculum and Textbook" and "Expert Committee on National Teacher Education Teaching Resources" of Ministry of Education.

As the Co-PI, professor Wang directed the development of *Middle School Chemistry Curriculum Standard* and *High School Chemistry Curriculum Standard of Mainland China*. She is also the Chief Editor of a set of high school chemistry textbooks (8 books, published by Shandong Science and Technology Press), which are the most widely used chemistry textbooks in the region of Mainland China.

She is taking charge of the construction of undergraduate course – "Chemistry Pedagogy" (for pre-service chemistry teacher) which was awarded as the National Top Quality Curriculum of China in 2009. As the PI, she has directed more than 10 national middle school or high school chemistry teacher training programs, which were commissioned by Ministry of Education. Furthermore, she is also taking charge of "expert-supported high level classroom teaching design and practical research project (high-end lesson study)", which has been a leading mode of teacher development in Mainland China. In the last decade, there have been more than 100,000 secondary school chemistry teachers participated in training programs (web based or face to face) hold by professor Wang.

All the above have contributed a lot on promoting chemistry curriculum reform and teacher professional development in Mainland China.

In recent years, Dr. Lei and her research team carry out in-depth and ongoing research in several areas, such as chemistry big ideas learning progressions, the development of secondary students' core competence, chemistry teaching research on promoting students' scientific cognition development, chemistry textbook research on promoting development of students' scientific literacy, study on the performance of students' subject abilities, study on chemistry teacher professional development and training, etc..

Relevant research results have been published more than ten books and more than 50 papers, which has a profound impact on chemistry education in Mainland China. She was invited to give a speech in the 21st International Conference on Chemical Education in 2010, and she have also reported these researches in NARST 2010, EASE 2011, AARE 2012, EASE 2013 and other international conferences.



Lei Wang
Beijing Normal University

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Congratulations to Professor Masakata OGAWA!

Japan Society for Science Education (JSSE) awarded the OTSUKA Award to Professor OGAWA this month for his distinguished contribution on science education. He is the sixth awardee for 36 years of JSSE history. Prof. OGAWA is the first President of EASE Association and a great supporter for the development of science education in EASE regions. He was just awarded the **EASE DISTINGUISHED CONTRIBUTION AWARD** in July, 2014 (Please refer to June issue of EASE Newsletter for more details).



The Invited EASE Symposium in 2013 ESERA and the Bi-regional Meeting - A post conference report by EASE Headquarters

The EASE Association accepted the invitation from the European Science Education Research Association (ESERA) Conference for organizing an EASE Symposium. The EASE Association welcomed the invitation and the President, Prof. Chi-jiu LIEN and Vice-President, Prof. CHENG May Hung, May, organized the Symposium. Five presenters, also Executive Members of EASE from five different regions, kindly supported and presented their research findings in the EASE Symposium at the 2013 ESERA Conference which was held in September 4th, 2013 in Cyprus (Photo). During the Conference, Presidents of ESERA, Prof. Manuela Welzel-Breuer and President of EASE, Prof. Chi-jiu Lien also held a meeting. In the meeting, colleagues from ESERA (including Secretary, Prof. Costas Constantinou and EM, Prof. Robert Evans) and EASE (including Former EASE President, Prof. Jinwoong Song and Vice President, Prof. Youngmin Kim and many others) exchanged ideas for enhancing the interaction and possibilities of strengthening connections between two Associations.

The theme of the EASE Symposium was set as: Research updates from the East-Asian Region- View scientific concept, teaching/learning, and evaluation from complementary perspectives. At the beginning of the Symposium, Prof. LIEN as the Chair of this session, introduced the EASE Association to the audience. He broadly shared current progresses of the EASE Association and the science education in the EASE regions. He used a metaphor of European Artist, Giuseppe Castiglione, also known as Lang Shining (郎世寧), who harmonized the Eastern and Western elements into his artworks and created a unique style of arts, to stress the importance of the sharing and cooperation among different cultural and educational systems. He also expressed his thankfulness to the ESERA for the invitation and his great appreciation to the authors and presenters for their contribution on promoting the academic exchange between EASE and ESERA.

The first presentation, "An Investigation on the Similarity between Misconceptions of Junior Secondary Biology Teachers and That of Their Students," was presented by Professor Enshan LIU, Beijing Normal University (BNU), China Mainland.

Prof. LIU is the director of the Department of Biology Education and the director of Science Education Research Center of BNU. He is the Executive Member (the former Vice President) of the EASE Association, the Deputy President of China National Association of Biology Teacher, the Chairman of National Committee of High School Biology Olympiad, Editor-in-Chief of *Biology Bulletin* (Chinese). He led projects in developing standard-based new biology textbooks and teaching materials that are being used by millions of 7-9 and 10-12 grades students in China. In the last 12 years, Prof. Liu plays an active role in national projects for professional development of in-service bio-teachers. As a part of the tasks, he completed 8 online teachers' training projects in the recent 6 years with target population of more than ten thousands bio-teachers.

In Prof. Liu's study, he examined common misconceptions on photosynthesis and respiration held by junior secondary school biology teachers and their students. Adopting the empirical methodology, this study successfully collected and analyzed misconceptions on photosynthesis and respiration held by 1442 students and their teachers. Interesting similarities and differences were found and reported. This study is important for it provides scientific evidence of the shortage of knowledge on teachers' side and its influence on their students. This suggests that a systematic identification on teachers' misconceptions and an empowering strategy for professional growth are needed.

The second paper, "One Country, Two Systems: Assessment Policy in New Senior Physics Curriculum Documents Hong Kong and Mainland China," was coauthored by Prof. CHENG May Hung, May and Dr. WAN Zhi Hong, Hong Kong Institute of Education (HKIEd), Hong Kong.

Prof. CHENG has been working in science and biology teacher education in HKIEd. She has been appointed as Reader in Professional Education at the Department of Education, University of Oxford, and a fellow of the Governing Body at Kellogg College. At the HKIEd, Prof. Cheng is currently Associate Vice-president (Academic Affairs) cum Registrar, and Professor in Science Education. She has taken up various academic leadership positions such as Acting Dean, Associate Dean (Programmes), Deputy Head of Department and Programme Leader. Prof. Cheng has had active participation in and made contributions to the international science education research arena. She is now Vice President of the East Asian Science Education Association (EASE), an International Committee member of the National Association for Research in Science Teaching (NARST).

Dr. WAN is a Post-doctoral research fellow in the Department of Science and Environmental Studies at the HKIE. He received a M.Phil. in educational psychology from Soochow University, and a D.Phil. in science education from the University of Hong Kong.

自分を信じ、仲間を信じ、できるって信じれば、必ずできる！

This presentation contrasted two important assessment guidelines which were from Mainland China and Hong Kong. Both guidelines published their new science education curriculum documents in the early 2000s, in which both documents considered the assessment innovation as an important part of their curriculum reform. The presentation made a comparison between assessment policies of science education as reflected in the curriculum documents of these two areas. While some common issues were identified in the documents, difference could be found in the conceptualization, aspects being emphasized, and policy implementation strategies. In the presentation, the contextual factors contributing to the shaping of such differences was also discussed.

The third paper, "Development of a Web-Based Collaborative Lesson Study System for the Professional Development of Science Educators," was presented by Prof. Manabu SUMIDA, Ehime University, Japan.

Prof. Sumida earned his MS. Degree in Science Education from Fukuoka Univ. of Education and Ph.D. Degree from Hiroshima University, Japan. He has many international academic experiences. He has been visiting Scholar in Univ. of Georgia, 1998-1999, and in University of Cambridge, 2012-2013. He also actively involved in professional societies. He has published over 50 papers in the last ten-year. His dedication in science education has also been recognized. Such as: 1996 and 1999 Young Scholars' Awards from Japan Society for Science Education, 2008 and 2009 Best Paper Presentation Award at the Annual Conference of Japan Society for Science Education and 2013 "Noyori" Science Promotion Award.

In the presentation, a self-developed web-based collaborative lesson study system was introduced. This system enabled educators to concurrently 1) watch educational practices and leave comments; 2) conduct real-time discussion; and 3) reflect on and analyze the database of comments. The system could also engage science educators in a much fruitful reflection on their educational practices in an asynchronous environment, leaving behind virtual database of discussion. The demonstration in the session aroused attention to its potential application in other educational systems.

The fourth presentation, "Co-construction of Scientific Models in East Asian Science Classrooms," was co-authored by Prof. Chan-Jong KIM and Prof. Min-Suk KIM, Seoul National University (SNU), Korea.

The presenter, Prof. Chan-Jong Kim is the Professor and Chairperson of the Dept. of Earth Science Education, SNU. He had B.S. in Earth Science Education and M.S. in Geological Sciences from SNU.; then, he got Ph.D. in Science Education from Univ. of Texas at Austin. He has been served as, Chairperson, Advisory Committee, International Earth Science Olympiad; Vice Chairperson, then Chairperson, International Geoscience Education Organization (IGEO), etc.

In this paper, Prof. Kim held the belief that science learning can be understood as gradual constructions of explanation systems by participating social practices and claimed the importance of the scientific modeling in science learning. However, he pointed out that teachers in East Asian regions seem to meet many challenges related to culture and educational context in addition to introducing modeling in their classrooms. Thus, this study collected data from Korean middle school science classroom by video-tape recordings and participant interviews. In addition to these, they also collected data from participating teacher who joined collaborative workshop on co-construction of scientific models and co-developed lesson plans with the researchers. Concepts of situation definition and inter-subjectivity were used to describe and understand the classroom interaction. Discourse analysis was also used to capture the dynamic process of co-construction. In this study, heterogeneity and fluctuation of situation definition were identified and explained from cultural and educational aspects.

The fifth paper, "What do science teachers need to have to implement inquiry-based science instruction—Perspectives from Taiwanese Science Teachers," was co-authored by Prof. Hsiao-Lin TUAN, Prof. Pi-Yun Cheng, Dr. Chung-Hsien TSENG, National Changhua University of Education (NCUE), Taiwan.

The paper was presented by Prof. TUAN. Prof. TUAN is the Professor of the Graduate School of Science Education, NCUE. She has served many projects/organizations, such as, Chairperson, International Committee, NARST; Member, Awarding Committee, NARST; President, Association of Science Education, Taiwan; Member, Editorial Board, International Journal of Science & Mathematic Education (SSCI); Member, Associate Editor, Journal of Research in Science Teaching (JRST, SSCI) and Chairperson, Graduate School of Science Education, NCUE. She has published over 200 papers/reports.

In this presentation, Prof. TUAN reported results from a survey of 748 high school science teachers. In this survey they collected their perception of their own inquiry-based teaching competence. They also collected 15 junior high school science teachers who successfully transformed traditional science teaching into inquiry-based science teaching, from which this study examined factors influenced on science teachers in implementing inquiry-based science teaching into their classroom setting. In the report, suggestions for science teacher education were also discussed.

These five presentations embedded special tradition of culture and family values of East-Asian Region, have demonstrated special figures of science education in the EASE regions and also revealed the great potential of cross-region as well as cross-society cooperation.

During the 2014 ESERA Conference, a meeting between ESERA and EASE were also held. President of ESERA, Prof. Manuela Welzel-Breuer and President of EASE, Prof. Chi-jui Lien and many colleagues from ESERA and EASE had a friendly and substantial discussion on Sep. 05, 2014. Both parts agreed to encourage mutual academic exchanges and interactions. Many details are under discussion and should be announced when approved by both parts.



(Presenters and some participants in the EASE Symposium at 2014 ESERA Conference)

Introduction of the Outstanding Paper Awardee in 2013 EASE Conference



Jing-Wen Lin, jingwenlin@mail.ndhu.edu.tw

Department of Curriculum Design and Human Potentials Development and Graduate Institute of Science Education,
National Dong Hwa University, Hualien, Taiwan

Jing-Wen Lin is an associate professor in the Department of Curriculum Design and Human Potentials Development at the National Dong Hwa University. She earned a Ph.D. in science education from National Taiwan Normal University in 2006. For her doctoral research, she conducted the first cross-domain study on the use of cladistics in science education to understand how mental models and concepts change in students. Her work has not only been recognized with several research awards in Taiwan. In 2013, a conference paper, which is related to her doctoral research, entitled “A cross-grade study revalidating the evolutionary pathway of student mental models in electric circuits” was recognized with the Outstanding Paper Award from East-Asian Association for Science Education 2013 International Conference. It was a great honor for her to be supported by the science education community of East-Asian.

As we know, a cross-grade study is valuable for understanding the impact of curriculum on students' learning as well as for facilitating the development of sequential curriculum content. However such studies are time and resource intensive. Jing-Wen Lin (Lin, 2006; Lin & Chiu, 2006) proposed a cladistics approach in conceptual evolution to construct a hypothetical Conceptual Evolution Tree (CET; also called Evolutionary Parthway of Student Mental Models) in electric circuits which used computers to overcome the limitations of earlier cross-grade studies. The hypothesis of CET in electric circuits was preliminarily validated using 440 students from Grades 3 through 9 (Lin & Chiu, 2009). The aim of the award paper is to revalidate this hypothesis. In this study, the cross-grade survey instrument was revised and a Web-based mental model diagnosis system was applied to collect and analyze data from 1,441 students. The results showed that the empirical cross-grade survey data closely met the hypothetical processes. The CET in electric circuits clearly reveals a whole image of the evolutionary pathway of cognitive characters of students' mental models in electric circuits from elementary to junior high school. In addition, it explains the relationship between conceptual evolution in students and the curriculum by comparing the relationship to the empirical data. The results support the success of the use of the cladistics approach in investigating conceptual evolution in science education. The revalidated CET in electric circuits could be a useful tool for science educators in designing curricula for classroom practice.

Her recent work focuses on fostering further research by taking the cladistics approach. The research includes empirical validations in different science domains, and the applications in designing appropriate teaching-learning sequences and learning progressions. She has published articles regarding students' conceptual understanding and changes as well as mental models in science learning in well-known international journals, such as *Journal of Research in Science Teaching*, *International Journal of Science Education*, and *International Journal of Science and Mathematics Education*.

Students' informal reasoning about socio-scientific issues:

A series of studies in Taiwan



Ying-Tien Wu

Associate Professor, Graduate Institute of Network Learning Technology,
National Central University, Taiwan

Rapid development in science and technology, such as genetic engineering and nuclear power usage, often bring about social dilemmas. These social dilemmas have conceptual or technological associations with science. In these dilemmas, science and society represent interdependent entities, and both the social and scientific factors play the central roles. As a result, these social dilemmas are termed “socio-scientific issues” (SSIs). At the 21st century, learners, as the citizens in modern society, have more and more opportunities to encounter a variety of socio-scientific issues. Therefore, improving learners' ability in dealing with SSIs has been regarded as one of the important goals for modern science education.

Take the nuclear power issue for example, it is one of a typical SSIs. When it comes to the energy shortage problem, there is always a fierce debate on whether nuclear power plants should be built in Taiwan or not. In recent years, the governments tended to hold referendum in order to decide if the fourth nuclear power plant should be built in Taiwan. However, when I interviewed some high school students on their personal positions on this issue, most of them did not apply what they learned in science classes in making their personal decisions. They just made intuitive decisions on this issue. The finding above surprised me and triggered my investigations.

After reviewing relevant literature, I found that most of the previous SSI studies focused on students' argumentation on SSIs. However, I was very interested in how students reasoned and made their personal decisions on a SSI. In general, how learner reason and make decisions on a SSI which is recognized as the process of informal reasoning. Therefore, from 2007 to now, I have conducted a series of studies regarding learners' informal reasoning on SSIs. My first study (i.e., Wu & Tsai, 2007) tried to interpret the process of informal reasoning on a SSI based on the dual-process theory and recent findings in educational psychological research (for the detailed, please refer to Wu & Tsai, 2007; 2011a). Also, in this study, an integrated analytic framework on informal reasoning regarding a SSI was developed. Then, with quantitative analyses, my second study (i.e., Wu & Tsai, 2011a) confirmed the significant relationship between high school students' SSI informal reasoning quality and their scientific epistemological beliefs (as well as their knowledge structures regarding this issue). In this study, a series of regression analyses further confirmed that students' use of the information processing mode, “comparing”, was the most significant factor for predicting their reasoning quality. The findings

above motivated me to conduct the third study (i.e., Wu, 2013). In Wu (2013), advanced multidimensional analyses were used to carefully reexamine the role of university students' knowledge structure on their SSI informal reasoning quality. This study revealed that those students with more extended and better-organized knowledge structures, as well as those who more frequently used higher-order information processing modes, were more oriented towards achieving a higher-level informal reasoning quality. Also, the study provided some initial evidence for the significant role of the "core" concept within one's knowledge structure in one's SSI reasoning.

The three preliminary studies provided me insights into learners' informal reasoning on SSIs. After that, I conducted other two studies to explore how technology could be used to scaffold student' knowledge construction regarding a SSI. As a result, their improved conceptual understanding regarding this issue can serve as tools for them to improve their reasoning quality. In Wu and Tsai (2011b), I tried to investigate the effects of different two online inquiry activities on high school students' knowledge structures and informal reasoning regarding a SSI. It was found that the guided online inquiry tasks did help university students obtain better knowledge structure outcomes regarding a SSI. However, the increments on their knowledge structure outcomes may only help them to propose more supportive arguments, but their reasoning quality was not particularly improved. In the other study (i.e., Wu & Tsai, 2011c), the effects of on-line SSI argumentation task (conducted with the online discussion forum) on improving university students' SSI informal reasoning was examined. It was found that both the students achieving a "higher" reasoning level and those achieving a "lower" reasoning level benefited from the anonymous on-line discussion, but in different ways. Both the students in the two groups proposed significantly more arguments after on-line discussion task. But, only the students achieving a "lower" reasoning level performed significantly better in their informal reasoning quality after the on-line discussion task. The two studies above are initial attempts on using technologies to scaffold learners' SSI informal reasoning.

In Aug 2010, I was included as a faculty member of the Graduate Institute of Network Learning Technology, National Central University in Taiwan. I began to research inter-disciplinarily within the areas of science education and educational technology. Recently, I am developing an online system for modeling and improving students' informal reasoning on SSIs. I sincerely hope I have opportunities to discuss and interact with science educators and researchers from East Asia.

Reference (* corresponding author)

1. Wu*, Y.-T. (2013). University students' knowledge structures and informal reasoning on the use of genetically modified foods: Multidimensional analyses. *Research in Science Education*, 43, 1873–1890.
2. Wu*, Y.-T., & Tsai, C.-C. (2011a). High school students' informal reasoning regarding a socio-scientific issue, with relations to scientific epistemological beliefs and cognitive structures. *International Journal of Science Education*, 33(3), 371-400.
3. Wu*, Y.-T., & Tsai, C.-C. (2011b). The effects of different on-line searching activities on high school students' cognitive structures and informal reasoning regarding a socio-scientific issue. *Research in Science Education*, 41(5), 771-785.
4. Wu*, Y.-T., & Tsai, C.-C. (2011c). The effects of university students' argumentation on socio-scientific issues via on-line discussion in their informal reasoning regarding this issue. In M.S. Khine (Ed.), *Perspectives on Scientific Argumentation Theory, Practice and Research*. (pp.221-234) Dordrecht, Netherlands: Springer.
5. Wu, Y.-T., & Tsai*, C. -C. (2007). High school students' informal reasoning on a socio-scientific issue: Qualitative and quantitative analyses. *International Journal of Science Education*, 29(9), 1163-1187.

EASE 2013 Conference Reflection

EASE Conference 2013 : Not the End, But a New Start



ZHANG Li-na, Beijing Normal University, Mainland China

It is my pleasure to participate in 2013 International Conference of East-Asian Association for Science Education. The aim of the conference is to build an international platform for exchange between scientists and science educators. It provided an opportunity to communicate and study from many other scholars.

Some of the speakers are well-known for their researches which I had read before, such as the papers written by Professor Reinders Duit and Professor John Gilbert. Besides the invited speakings, there were 9 sub-themes of the conference. For example, Public understanding of science, Learning and teaching science, Assessment of students' science learning and development, Teacher education and professional development, and so on. Some of them are of my research interests. I tried my best to perceive the highlights of the attracted representations and took videos. Therefore, there were so many representations that I couldn't enjoy all of them at the same time.

During the conference, I had shared my research in a symposium titled with 'Research on core chemical idea learning progressions and key competence development in secondary school—based on cognitive mode development theory and by using Rasch model'. My experience of presentation and discussion was not only excited but also challenging for me because this was my first time to have a presentation at an international conference.

I am a speaker of little experience in Professor Wang Lei's research group. Thus, careful preparation and pre-presentation in my group is very important. My leader and colleagues provided me with many helpful suggestions which made my presentation being successful. It was a process of 'learning from doing'.

The EASE conference 2013 was closed; it's not the end, but a new start. EASE 2015, 2017, 2019 ... will come in the future continuously. I think all the EASE members should review and reflect about the last EASE conference so as to make better progressions and provide excellent experience for the coming conferences. After the conference, I have reviewed the two presentations I learned during the conference and the days in Hong Kong. I have learned a lot and made many friends. However, the gaps between my research that of other scholars are also discovered. The experience impressed me mostly are as the following.

- 1) Excellent research is the base for scholar communication on the international platform;
- 2) The ways of reporting academically can contribute to a successful report;
- 3) Some new points in science education are valuable, such as HLM.

The travel of EASE Conference 2013 brought me a lot. Thank you EASE conference 2013 and all the participants sharing their researches during that period. I'm looking forward to meeting the old friends and making new friends at the next EASE conference in 2015 at Beijing Normal University.

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EASE 2013 Conference Reflection

How do I feel about EASE?

HUANG Ming-chun, Beijing Normal University, Mainland China

The EASE 2013 Conference has just been closed. Those past three days must have been very fruitful for all the participants. As the theme says, “Building an international platform for exchange between scientists and science educators”, it is attractive to us because it is a valuable platform. The conference was colorful in many aspects.

Some of participants of the EASE 2013 Conference are old friends. We are keeping contact with and missing deeply each other. This conference offered a great opportunity for us to meet and join together in the EASE family again. We can't wait to share our growing up in minds and appearance of the past year “How are you getting on your dissertation research?” “Oh, your hair has been cut!”. Yes, Friendship comes first. While far more than this in EASE.

EASE 2013 keeps following the step to improve science education for Asia. Science educators take responsibility for a better science education through their hard work, cooperation, and communication. Research in theory or practice sharing by professors reminded me to have a deep insight of my future research. Macro researches, such as education policy, environment, Meso or micro researches in curriculum, instruction, assessment, have broadened my vision in this field both in minds and in methodology. Science education research encompasses all the science disciplines, such as physics, chemistry, earth science and biology. Scientists brought powerful research products in cognitive neuroscience of brain. Both the research paradigm and technique are very impressive. And just the style of presentation also made a lot of sense to me. There is no doubt that the keyword of EASE 2013 Conference for all participants was continuous learning. The whole procedure is just like you open a door of EASE, come in and sit as a student, when come out, you feel your mind was full and updated. And, what is the most exciting thing? The BIG man in science and science education is just nearby, you can talk, even discuss with them. This time they went down from the paper, being a real person!

In addition to the above, EASE 2013 was special for me because we have been there for a symposium led by professor WANG Lei from Beijing Normal. As a symposium leader, professor WANG Lei gave her presentation titled with “Research on Core Chemical Idea Learning Progressions and Key Competence Development in Secondary School: Based on Cognitive Mode Development Theory and by Using Rasch Model”, which shows the sticking point of our team and nearly a decade of research results. Then case study of four core ideas were demonstrated which are organic compounds, electrolyte solution, structure of matter, and reaction. That symposium was a milestone for our research team for sharing research results with getting valuable feedback from scholars outside mainland China and for the first time. As a member of our research team, I'm impressed by the experience and the encouragement from other team members, which make me more powerful and confident. As a team, all the members should work together and fight for the same goal.

Being participated in EASE for two years, I have served as many roles, as a “family” member to meet friends, as a student to learn science education, as a member of a team to “fight”. William Wordsworth says, Life is divided into three terms - that which was, which is, and which will be. Let us learn from the past to profit by the present, and from the present, to live better in the future. And I believe there are many roles waiting for me in EASE, so I will do well now, and prepare for the future.



EASE 2013 Conference Reflection

A Broader Perspective from the Third International Conference of EASE (2013)

Cheng Liu, the College of Life Sciences, Beijing Normal University

The Third International Conference of East-Asian Association for Science Education, in which the theme was “Building an International Platform for Exchange between Scientists and Science Educators”, was held in Hong Kong during July 4-6, 2013. I felt lucky to participate into this wonderful festival for all science education practitioners all over the East Asian regions.

During the conference, the keynotes and invited speeches showed many interesting topics, including Neuroscience and learning science, Didaktik and PCK, the socioscientific issue (SSI), informal science education resources, from science field to science education, misconceptions, science learning assessment, and 21st century skills. In addition, the broader research perspectives were also emerged from hundreds of oral presentations, poster exhibition, workshops, symposia and demonstrations from different districts in the East Asian.

Besides, there were some symposia that gave advices and suggestions about how to write papers to submit in science education journals, for example, the symposium called “Publishing in science education: useful information for graduate students and early career scholars”. It is very useful for the non-native English speakers to know more about the way of writing and the process of review and revision.

Last but not least, it was some very interesting workshops hosted by the education corporations that product teaching materials, such as a workshop called “Experiments Experience using Gas Detector Tube introduced in the textbooks in Japan and South Korea” that introduced how to teach photosynthesis and respiration through their gas detector tube and allowed participants tried it out by doing hands-on activities. It opened my eyes to know more possibilities of using technologies to help students learn science through hands-on activities. And it was also a good platform for knowing the contribution made by corporations and helping teachers get access to these teaching materials.

As previously mentioned, I felt lucky to join in this wonderful festival because it presented a wide range of studies from both science education and science field, afforded many useful information and suggestions about writing and publishing, and expanded the concern about cooperation out of the academia to the education corporations and society.





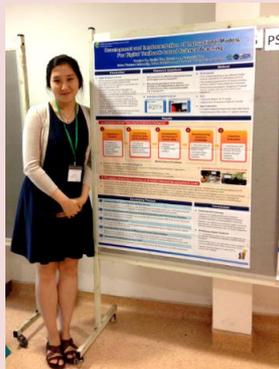
EASE 2013 Conference Reflection

My First Visit to the EASE Conference at Hong Kong

Yeonjoo Ko, Ewha Womans University, South Korea

I would like to say that the EASE 2013, held at Hong Kong Institute of Education, was one of my best memories in this summer. I remember that I devoted myself to writing my first proposal as a graduate student, during the past winter, to get a chance to present at this EASE conference. Fortunately, my proposal was accepted. When I received the email from EASE, I was so excited because it was my first research presentation as well as my first attendance at an academic conference. Furthermore, I had never been to Hong Kong, and so I was also looking forward to seeing the night view of Hong Kong. Everything was the first time to me.

When I arrived at the conference venue, some volunteer students welcomed me and helped me to register and get the name tag from the registration desk. When I saw my name on the name tag and in the program book, I was on cloud nine. It was the moment that I became an official member of EASE.

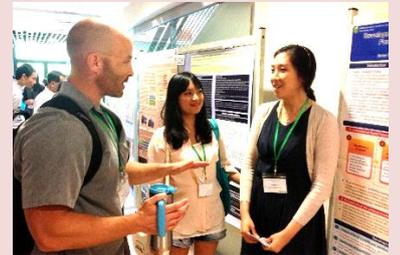


One of the most interesting things during the conference was that I could meet famous scholars that I had seen their names on research papers. Their keynote speeches were quite impressive. I also met Dr. Wong and Dr. Herman there, who visited to my university in Korea for the summer symposium on NOS and SSI.

My presentation was on the first day of the conference. Even though I practiced several times to better introduce my research, I felt like my brain was getting blurred. It was my first time to present my research in front of unknown foreign people in English. I tried to bring the tips and advices from my advisor to my mind, but I was still nervous and so stumbled over my words and spoke quickly with overused hand gestures during my presentation. However, as time went by, I got used to it. I think I did quite a great job because many colleagues stopped by me and gave me some good comments on the poster. Worries in my mind that nobody might come to my poster were turned into the delight. Audiences showed their interest in my research on Korean Digital Textbook more than I expected. By this experience, not only did I realize the points to supplement and emphasize of my research but also develop my presentation skills. It was a great opportunity for me to meet other students and interact with prominent scholars from the whole Asia and other countries, not limited to South Korea.

After my poster presentation, I became carefree! For the next step, I attended other sessions that matched with my research interests. Since there were multiple speakers presenting simultaneously in different rooms, it was quite enjoyable to see various topics. I was impressed by the presenters fluently and confidently introducing their research, and by the audiences freely asking questions and adding comments. I strongly felt that this was a good arena where science educators and researchers having diverse background shared their research and ideas and developed new research agenda.

Overall, my first visit to the EASE conference became a powerful driving force for me to raise my desire of doing research, a facilitator to study hard, and an assistant to have a confidence as a graduate student. The only thing I missed from this conference was that I could not make many foreign friends because of my shyness. Maybe next time! I will also try to give an oral presentation at the next EASE meeting, which will be held in Beijing. I will never forget this enjoyable conference!



Call for Participation- 2014 EASE Winter School, Jan. 12-18, at Seoul, Korea



EASE Winter School provides education for advanced graduate students working in science education and related fields and invites members to participate in a workshop. The goal is to enable students to study with faculty and receive training not easily available within the traditional system of graduate education.

“EASE Winter School 2014” will be held at Ewha Womans University, Seoul, Korea during January 12-18, 2014. EASE EMs in each region need to recommend 4-5 PhD students and 1 coach. Students and coaches will be supported by meal and accommodation during stay. The EASE Winter School consists of three parts: lectures by senior professors, group discussion about participants’ dissertations and collaborative proposals. In four lectures, four senior professors are invited to give talks and also serve as committee supervisors. There will be five working groups, each consists of five students from five different member regions and group discussion is operated under the guidance of coaches and senior professors. Group discussion is operated under the guidance of coaches and senior professors. Two types of group discussion will be held at the winter school. In five dissertations discussions, students are expected to present and discuss their studies in small, supportive groups consisted of peers from all over the east-Asian. Furthermore, students are expected to take an active part in the analysis and discussion of other students’ studies or ongoing research.

If you or your Ph.D. students are interested in this winter school, please contact the regional responsible Editors, Executive Members or the Headquarters (ease.ncue@gmail.com) for more information and the application form as soon as possible (Each Region will decide the list of students before October 15, 2013). We are looking forward to seeing promising researchers in Seoul.



구슬이 서말이라도 꿰어야 보배



The 29th ASET Annual International Conference

On behalf of the Association of Science Education in Taiwan (ASET) and the EASE association, we would like to invite you to join us for the 29th ASET Annual International Conference. The conference will be held at the National Changhua University of Education in Changhua, Taiwan. ASET is the largest science education association in Taiwan, established since 1988. Each year during the conference, we invited internationally renowned scholars as speakers. Last year, there were about 240 presentations in math and science education. The 29th ASET Conference is also one of the activities recognized by the EASE association. Further detailed information regarding proposal submission will be announced in early summer. Please book the dates and join us!

The 29th ASET Annual International Conference

Dates: December 12-14 2013

Location: Changhua, Taiwan.

Conference Theme: Key Literacy and Essential Skills for the 21st Century

Conference Website: <https://sites.google.com/site/aset2013en>

Important Dates:

Early Bird Registration Deadline: November 15th

Keynote Speakers (by alphabetical order)

Dr. Yew Jin Lee, Natural Sciences and Science Education, National Institute of Education, Singapore

Dr. Chia-Ju Liu, Graduate Institute of Science Education, National Kaohsiung Normal University, Taiwan

Dr. Masakata Ogawa, Graduate School of Mathematics and Science Education, Tokyo University of Science, Japan

Dr. Jonathan Osborne, Graduate School of Education, Stanford University, USA

Dr. Alice Wong, Faculty of Education, The University of Hong Kong



More pictures please visit: http://aps.ncue.edu.tw/ncue_photo/build.html

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Sep., 2013	Prof. Sungtao Lee (leesungtao@gmail.com)	Taiwan
Dec., 2013	Prof. So, Winnie Wing Mui So (wiso@ied.edu.hk)	Hong Kong
Mar., 2014	Prof. Wang Jian (wj423@163.com)	China Mainland
Jun., 2014	Prof. Hyunju Lee (hlee25@ewha.ac.kr)	Korea
Sep., 2014	Prof. Shiho Miyake (miyake@mail.kobe-c.ac.jp)	Japan



You're welcome to contact the regional responsible editors, if you have any news about science education around you at any time.

We will help you spread the news around! ^^

知之者不如好之者，好之者不如樂之者。—孔子

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Chief Editor of E-Newsletter

✚ Sung-Tao LEE, National Taichung University of Education (Feb 1, 2012 -)

Upcoming Conferences

- ✚ 29th ASET Annual International Conference. Dec. 12-14, 2013 @Taiwan
<https://sites.google.com/site/aset2013en>
- ✚ EASE Winter School 2014. Jan. 12-18, 2014 @ Ewha Womans University, Seoul, Korea
- ✚ ASTE 2014 International Meeting. Jan. 15-18, 2014 @ San Antonio, TX
<http://theaste.org/meetings/2014-international-meeting/>
- ✚ 2014 NARST Annual International Conference. Mar. 30-Apr. 2 @ Pittsburgh, PA, USA
- ✚ NSTA 2014 National Conference Apr. 3-6, 2014 @ Boston, MA
<http://www.nsta.org/conferences/2014bos/>
- ✚ Canada International Conference on Education. Jun. 16-19, 2014 @ Cape Breton University, Nova Scotia, Canada
<http://www.ciceducation.org/>
- ✚ Science Education at the Crossroads 2014. Call for Proposals in March 2014, with an anticipated meeting in September 2014.
<http://www.sciedxroads.org/callpaper.html>
- ✚ 11th International Conference of the Learning Sciences. June 23-27, 2014 @ Boulder, Colorado, USA
<http://www.isls.org/icls2014/>



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