



**THE NEWSLETTER OF
THE EAST-ASIAN ASSOCIATION FOR SCIENCE EDUCATION**
東亞科學教育學會通訊

**VOL.3, No.4
No. 0012**
Dec. 15, 2010

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EASE 2011

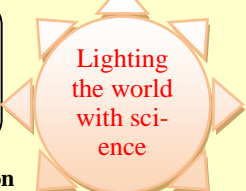
Theme: "Lighting the world with science"
Venue: Chosun University, Gwangju, Korea
Dates: **October 25-29**

Important Due Dates

Abstract submission: **May 31, 2011**

Full paper submission (option): Jul. 31, 2011

Early bird registration: Aug. 9, 2011



Invitation from Gwangju, Korea

Welcome to Gwangju (光州), Korea for EASE 2011!

It is great pleasure to invite EASE members and other science educators for the forthcoming EASE 2011 conference to be held in the City of Light, Gwangju (光州), South Korea. Gwangju Metropolitan City is located in the southwest corner of the Korean peninsula and is internationally well known for its beautiful mountains and intangible cultural assets. We are sure that you will enjoy Korea's traditions and beauties.

The theme of EASE 2011 conference is "Lighting the world with science". In order to encourage more active participation of the EASE members and educators, we provide 10 different strands in science education and offer different formats of sessions including oral and poster presentations, invited speech, special concurrent sessions, and cultural visits.

We hope that EASE 2011 becomes a place where you can share your research interests, build relationships with other colleagues, and taste Gwangju. We look forward to meeting you in the City of Light in October, 2011.

Jinwoong Song, president of EASE
Byungsoon Choi, chair of the organizing committee
Youngmin Kim, conference coordinating chair

Plenary Session & Specific Concurrent Session

26th PM	Plenary session		
27th AM	Workshop	Special Session	Special Session
27th PM	Special Session	Workshop	Physics Demo
28th AM	WCU Workshop	Special Session	Special Session

Invited speakers and contributing presenters for special session

Name	Affiliation
Prof. Steven Chapman	University of London, UK
Prof. Justin Dillon	King's College London, UK
Prof. Hiroki Fujii	Okayama University, Japan
Prof. Brian Hand	University of Iowa, USA
Prof. Joseph Krajcik	University of Michigan, USA
Prof. Gao Lingbiao	South China Normal University, China Mainland
Prof. Chiaju Liu	National Kaohsiung Normal University, Taiwan
Prof. Michael Matthews	University of New South Wales, AUS
Prof. Jongwon Park	Chonnam National University, Korea
Prof. David Treagust	Curtin University, AUS

Brief schedule

	OCT 25th TUE	OCT 26th WED	OCT 27th THU	OCT 28th FRI	OCT 29th SAT
9:00			Registration Oral presentation 2 Specific concurrent session 1	Oral presentation 5 Poster session 3	
12:00		Registration Opening ceremony Congratulatory & Welcoming address	lunch Oral presentation 3	Specific concurrent session 3 Poster session 3 (continued)	Cultural visit
		Science performance	Science demo 3 Poster session 2		Option 1
		Invited speech	Specific concurrent session 2 Poster session 2 (continued)	Educational visit	Option 2
		Science Demo 1 Poster session 1		Option 1	
		Oral presentation 1 Poster session 1 (continued)	Oral presentation 4	Option 2	
18:00	Social Ice-breaker	Dinner Science Demo 2 EASE meeting	Conference banquet		



Strands

1. Teaching and Learning Science in Schools
2. Teaching and Learning Science in Informal Settings
3. Professional Development of Science Teachers
4. Assessment and Evaluation in Science Education
5. ICT and Science Education
6. Teaching Scientific Creativity
7. Socio-Scientific Issues and Human Values in Science Education
8. History and Philosophy for Science Education
9. Teaching Science at College level
10. Regional-Specific Science Education

Registration

- Participants are encouraged to access the EASE website for registration.
- Registration form can be downloaded at: <http://www.theease.org>
- Early bird registration is recommended.
- On-site registration is also available.

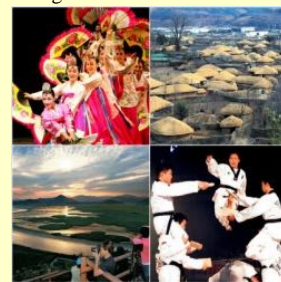
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General guidelines

- Participants intending to present a paper, workshop, or demonstration will be requested to submit an abstract (150-500 words, English only) by May 31, 2011.
- The topics of the conference include, but are not limited to, educational studies in science, mathematics, technology, and environment.
- Authors are welcomed to submit extended versions of papers for the EASE 2011 publication. The papers will be automatically reviewed for the "Outstanding Paper Award" competition.
- All abstracts and full papers are required to be submitted via the EASE website.
- **Travel awards** will be given to a few graduate students/Junior scholars on the basis of re-viewed abstracts/papers
- The official language of the conference is English.

Updated information is shown on page 3



UCHIDA
<http://www.uchida.co.jp/global/>

Mission of EASE

- Fostering networks among researchers
- Being a platform for collaboration and cooperation
- Contributing to policies and practices through research
- Enhancing research relevant to our culture and heritage



The 13th Seoul National University-Hokkaido University Joint Symposium (Held on Nov. 4-5, 2010)

Chan-Jong Kim (Department of Earth Science Education, Seoul National University, Korea.)



Prof. Ezio Ohno's a welcoming speech

Seoul National University (SNU) and Hokkaido University (HU) have organized a joint symposium every year in different academic field on a reciprocal basis since 1998 to commemorate the conclusion of an Inter-University Exchange Agreement between the two establishments in 1997. However, the 1st joint symposium for science education was organized in 2008 by Faculty of Education in HU and the Center of Science Education for the Next Society (SENS) in SNU.

Titled 'Comparative Study of Science Teacher Education at Formal and Informal Educational Settings in Korea and Japan', this year's joint symposium was held from November 4 and 5 at the Conference Hall of HU in Sapporo. In addition to the organizers, Prof. Ezio Ohno in HU and Prof. Junehee Yoo in SNU, 25 researchers from Korea, Japan, Taiwan, and Finland participated. From this year, National Taiwan Normal University agreed to join this exchange program, and Prof. Chen-yung Lin and Prof. Chun-Yen Chang attended. Prof. Jari Lavonen from University of Helsinki, Finland visited Hokkaido and also attended the symposium.

In contrast to beautiful and peaceful campus which really glowed with color of the fall, the Conference Hall was heated with the participants' presentations and discussions in spite of the tight schedule. On the 1st day, the sessions about 'school science classroom' and 'teacher education' were provided. In these sessions, diverse analysis for understanding learning situation or phenomena in the science class and the context of science teacher training system were introduced. On the 2nd day, the sessions about 'teacher education' and 'informal science education' were held. In these sessions, the latest research studies of teachers' conceptions or perceptions related to science and various strategies for visitors' learning in science museums were presented. After each session, active discussions among the presenters and the audiences occurred with two discussants' responses to the presenters: Minoru Tanaka (Hokkaido University of Education) and Masako Tanemura (Osaka Kyoiku University).



Prof. Chan-Jong Kim's presentation



The museum of HU

Besides the seminar, participants also enjoyed cultural visits and social meetings. Participants were invited to the conference dinner at Sapporo beer garden, and also visited the Museum of HU. The wealth and breadth of exhibition of Museum of HU was very impressive. The visit of the Museum of HU inspired the participants the importance of informal settings in science education.

From this annual seminar, researchers of science education in each participating country have promoted mutual understanding and academic exchange. Making a stepping stone of these experience, it expects to develop broader and deeper understandings of science education in East Asia and the world. Next year's seminar will be held in National Taiwan Normal University, Taipei, Taiwan in November. If interested in joining this university-based exchange, please contact Chan-Jong Kim (chajokim@snu.ac.kr).

Final report of EASE collaborative research:

The comparative study of SCI (Science Culture Indicators) development at regional level in East-Asia area



of accumulated empirical and practical data through this study. Professor Jinwoong Song (Korea), Professor Masakata Ogawa (Japan), Reader May Cheng (UK now but for Hong Kong data), Associate professors Wenli Liu (China Mainland), and Chiaju Liu (Taiwan) participated in this project and I worked as principal investigator to get the fund from KOFAC (Korea Foundation for the Advancement of Science & Creativity) and run this project. We had two meetings; (1) workshop in Taiwan (July 19th -22nd, 2010) to construct the validity and reliability of SCI frames in collecting the data, and (2) symposium (October 24th and 25th, 2010) in Korea to report the final data and interpretation with the use of SCI frames each. In the symposium, each researcher from the participating regions reported what are their strengths as well as weaknesses with the view of science culture on the basis of raw data. Sudhakar Agarkar who is an expert in science culture from India attended this conference and other colleagues from France and USA also showed their interest in science culture indicators compared over regions in Asia.

Some findings of interest are as follows; (1) in terms of population, in our comparison group, we have the most singular cases in the world, China mainland of the biggest population and Hong Kong the most densely populated region. The most serious social issue which EASE regions face as a whole is the 'aging population'. The aging issue is so fundamental that all corners of social policies need to re-design accordingly, especially in education; (2) EASE regions in general show high standards of IT and high-tech. Considering the strong interlinks between IT & High-tech and educational practice, the general conditions and practice of education in the regions will certainly contribute to a great improvement

Young-Shin Park (Chosun University, Korea)

The collaborative project within the East-Asia regions commenced with the content of developing SCI for the last 7 months from May to November 2010. The purpose of this project is to develop SCI system for the national level reflecting the features of East-Asian regions, to identify the strengths as well as weaknesses of each region's science culture by carrying out a comparative analysis of regional data, and to contribute to systematic policy making for science culture of East-Asian regions as well each region, on the basis

Updated news from EASE 2011

You can find all information of the EASE 2011 conference at
<http://new.theease.org/conference.php>



IMPORTANT DUE DATES

- Announcement of general information on abstract submission: March 1st, 2011
- Abstract submission: April 1st - May 31st, 2011
- Full paper submission (option): July 31st, 2011
- Abstract review: June 1st - June 15th, 2011
- Notification of acceptance and rejection: June 16th - June 30th, 2011
- EASE 2011 registration: June 1st - August 9th, 2011 (Early bird)
 Deadline for on- line registration: September 30th, 2011
 Registration rate (shown in the table)
- Hotel reservation: Available from July 1st, 2011
- ◆ Contact on abstract submission: Prof. Hye-Gyoung Yoon (yoonhk@cnue.ac.kr)
- ◆ Contact on registration: Prof. Hyunju Lee (hlee25@ewha.ac.kr)

Early bird registration	USD 150.00
Early bird registration for student	USD 70.00
Regular registration	USD 200.00
Regular registration for student	USD 90.00
On-site registration	USD 220.00

(...continued) in educational provision in near future; (3) The general conditions of education is believed in large to be not much different from OECD members, however, considering cultural and social high demands on education in the regions, these educational conditions are expected to be gradually improved as long as the regions' economic situation allows; (4) In two most popular international comparative studies on secondary education (science and mathematics), TIMSS in 2007 and PISA in 2006, four EASE regions (except China Mainland which did not attend) showed consistently high performances, not only in science but also in mathematics and others, landing on the top group, together with Finland and Singapore. Despite the consistent high performances, in case of students' affective aspects and engagement, the trend is almost completely the opposite; (5) Compared with the Western world, the central governments in EASE regions traditionally play more active roles in policy making and innovations. The government, particularly the central, is often regarded as the subject of ultimate responsible for national development and policies. The ministry responsible for science culture is MOE (Ministry of Education) in China Mainland, EDB(Education Bureau) in Hong Kong, MEXT(Ministry of Education, Culture, Sports, Science and Technology) in Japan, MEST(Ministry of Education, Science, and Technology) in Korea, and MOE(Ministry of Education) in Taiwan. These ministries are of practical importance in their regional contexts because they are primarily responsible for providing financial supports and assessing various S&T programs and activities, not only of PUS but also often of School Science and R & D; (6) In all regions, while data on R & D are gathered and processed well, those of PUS and School Science are often poorly managed. R & D data are regularly planned, administered, obtained, processed, and interpreted by national institutes. Another issue is how to improve the situation of PUS. One of the major points concerning PUS is the education and training of PUS specialists. Another point is to develop an effective way to create a link with the system of school science which has firmly established for a long time. Even with seven months' short period of time and limited budget of the project, we were able to manage to collect and compare the data of the social situations of science culture in five regions. The information gathered through this project could serve as a valuable resource for monitoring and checking of regional policies and program related to science culture. If you are interested in reading a full paper of project, don't hesitate to contact me. parkys@chosun.ac.kr. You can find the full version of this paper on EASE website soon. I hope this project could work as the platform where other collaborative projects can be discussed and initialized.



Conferences around the world

2nd East Asian International Conference on Teacher Education Research Dec. 15-17, 2010.

@Hong Kong Institute of Education,
<http://www.ied.edu.hk/eai-conference2010/>
Global Chinese Conference on Science Education 2010 (GCCSE) Dec. 20-21 2010

@ The Hong Kong Institute of Education,
<http://www.ied.edu.hk/gccse/>
ASE Annual Conference 2011 (The Association for Science Education) Jan. 5-8, 2011

@University of Reading, UK.
<http://www.ase.org.uk/>

epiSTEME 4 (4th International conference to review research on Science, TEchnology and Mathematics Education) Jan. 5-9, 2011

@Homi Bhabha Centre for Science Education (TIFR), Mumbai, India
<http://episteme4.hbcse.tifr.res.in/>
90th Annual Conference of SBSEJ (The Society of Biological Sciences Education of Japan) Jan. 8-9, 2011 @ Saitama Univ., Japan
http://homepage2.nifty.com/biol_ed/
ASTE 2011 International Conference (The Association for Science Teacher Education)
 Jan. 19-22, 2011 @Minneapolis, MN, USA
<http://theaste.org/meetings/2011conference/>
Exploring Leadership & Learning Theories in Asia (ELLTA) Feb.15-18, 2011 @ Malaysia
<http://ellta.org/>
AAAS 2011 Annual Meeting
 Feb. 17-21, 2011 @ Washington, D.C. USA

<http://www.aaas.org/meetings/>
Scottish Science Education Conference 2011
 Mar. 4-5, 2011 <http://www.asescotland.org.uk/>
NSTA 2011 National Conference Mar. 10-13, 2011 @ San Francisco, CA, USA.
<http://www.nsta.org/conferences/2011san/>
NARST 2011 Apr. 2-6, 2011 @Orlando, FA, USA
<http://www.narst.org/>
Canada International Conference on Education (CICE-2011) Apr. 4-7, 2011, Toronto, Canada. <http://www.ciceducation.org/>
Scientix conference May 6 - 8, 2011@Brussels, Belgium <http://scientix.eventbrite.com/>
Redesigning Pedagogy International Conference 2011, May 30 - Jun. 1, 2011 @NIE, Singapore, <http://conference.nie.edu.sg/2011/>

"Equipped with his five senses, man explores the universe around him and calls the adventure Science." Edwin P. Hubble (1889-1953)

Transformative Educational Research – New Tools for a New World

Peter Charles Taylor (Science and Mathematics Education Centre, Curtin University, AU)

Be the change that you want to see in the world (Mohandas Ghandi)

The world is transforming before our eyes in ways that are both exciting and frightening, leaving many feeling unprepared to participate as socially responsible citizens in a globalising world.

- As we utilise new technologies to improve our material lives the resulting carbon emissions are contributing to climate change which is threatening the survival of the human race.
- Unsustainable harvesting of natural resources (fish, forests, water, minerals) to generate food, housing, power and profit is contributing to the collapse of ecosystems and the loss of biodiversity.
- Biomedical technologies are improving the quality of our lives with implants but are threatening to robotise us, raising the question of what it means to be a human being.
- Genetically modified food crops promise greater harvesting yields but there are concerns about the impact on our health as we try to rapidly adapt our digestive systems.
- First-World education exported into the Third-World is raising living standards but is also reducing cultural and linguistic diversity, leading to loss of traditional eco-cultural practices.

How we respond to these very challenging dilemmas depends on our capacity for critical reflective thinking, our level of ethical awareness, our ability for creative problem solving, our vision of a better world, and our competence to collaborate in complex and sensitive decision-making processes. As a science educator, I feel a great responsibility to ensure that curricula and teaching practices are enabling young people to develop these essential higher order cognitive and social skills. But perhaps that is putting the cart before the horse! Should we not, first and foremost, focus our resources on developing these skills in our teachers in order that they, in turn, can pass them on to their students, the future leaders of society?

In considering how to make teachers' professional development relevant to the challenges of the 21st century I have found it worthwhile to heed Parker Palmer (1997) who argues that teachers need to know more than what to teach and how to teach; it is equally important for teachers to understand deeply why they teach, who they teach and, notably, who is the self who teaches. As Socrates famously said, wisdom derives from knowing thyself. I would add that this involves knowing the culturally, politically, socially, historically and economically situated self; how one's identity and behaviour are shaped (and constrained) by these largely invisible influences.

The past 30 years have given rise to exciting developments in educational research that are now affecting the quality of professional development we provide to teachers, especially postgraduate studies involving teachers as researchers. In addition to the scientific methods of the 20th Century, we have a variety of innovative research methods that enable

teacher-researchers to develop the essential higher order cognitive and social skills and commitment to becoming active participants in transforming themselves, and thus the world around them, starting with the professional culture of their own workplaces.

These new practitioner research methods derive from anthropology, the Arts and political science (see Taylor, Settelmaier & Luitel, in press/2011).

- Ethnographic methods enable us to stand in the shoes of the other, to generate mutual understanding and appreciation of the differences that define us and the common humanity that unites us.
- Autobiographical narrative methods honour the authority of our own experience and provide us with rich means for communicating so that our readers can better understand and be influenced by us, especially when we write in ways that are educationally thoughtful.
- Critical methods give us the conceptual (and moral) tools for exposing ingrained social injustice, for identifying the source (often hidden in our cultural history), and for reflecting critically on our own part in (unwittingly) turning a blind eye to those in need of being treated more fairly. For example, critical science education has done much to redress the earlier gender imbalance that favoured girls over boys, and around the world indigenous knowledge systems are being introduced into the science curriculum in an endeavour to facilitate cultural and linguistic diversity.
- And from the Arts we have new ways of thinking (such as metaphor) and new means of expression (such as poetry and plays) with which to conduct, portray and perform our research as active agents of social change.

The practitioner researcher uses multiple methods such as these to examine critically and creatively his/her own professional practice and the professional culture within which it is embedded, seeking ultimately to transform it in ways that enables him/her to more successfully prepare students as socially responsible citizens committed to and capable of tackling the urgent global challenges besetting the planet.

References

- Palmer, P. J. (1997). *The courage to teach: Exploring the inner landscape of a teacher's life*. San Fransisco, CA: Jossey-Bass.
- Taylor, P.C., Settelmaier, E., & Luitel, B.C. (in press/2011). Multi-paradigmatic transformative research as/for teacher education: An integral perspective. In K. Tobin, B.J. Fraser, & C. McRobbie (Eds.), *International handbook of science education*. Netherlands: Springer.

This article was first published in the Research Newsletter of the Transformative Education Research Group Philippines Chapter (Vol 1, No1, Dec 2010), under the directorship of Milton Medina, Assumption College of Naburantan.



42nd Annual ASERA Conference (Australasian Science Education Research Association)

Jun. 29 - Jul. 2, 2011 @University of South Australia, Adelaide SA, AU

<http://www.asera.org.au/>

11th International IHPST and 6th Greek History, Philosophy and Science Teaching Joint Conference Jul. 1-5, 2011 @Thessaloniki, Greece

<http://ihpst2011.eled.auth.gr/>

The 18th International Conference on Learning: Learning Conference 2011

Jul. 5-8, 2011 @ University of Mauritius, Reduit, Moka, Mauritius

<http://thelearner.com/conference-2011/>

Abstract due date is Jan. 4

22nd Annual Meeting of JSEE (Japanese Society of Environmental Education) Jul. 16-18, 2011 @ Aomori University, Japan

<http://www.soc.nii.ac.jp/jsoc/>

6th World Environmental Education Congress

Jul. 19-23, 2011 @Brisbane, Queensland, AU

<http://www.weec2011.org/>

2011 ASP Education and Public Outreach Conference (Astronomical Society of the Pacific) Jul. 30 - Aug. 3, 2011 @Baltimore Maryland, USA.

61st SJST Annual Conference Aug. 20-21,

2011 @ Shimane University, Japan

http://www.soc.nii.ac.jp/sjst/eng/index_e.html

35th JSSE Annual Conference

Aug. 23-25, 2011 @Tokyo Institute of Technology, Tokyo.

<http://cert.shinshu-u.ac.jp/et/jsse/index.html>

EARLI Conference 2011 (The 14th Biennial Conference of the European Association for Research in Learning and Instruction)

Aug. 30 - Sep. 3, 2011 @Exeter, UK.

<http://www.earli2011.org/>

ESERA 2011 Conference Sep 5-9, Lyon, France. Abstract submission: Jan. 10, 2011

<http://www.esera2011.fr/>

Ireland International Conference on Education (IICE-2011) Oct. 3-5, 2011, Dublin, Ireland

<http://www.iicedu.org/>

EASE 2011 Chosun University, Gwangju, Korea. Oct. 25-29, 2011 (See page 1 & 3)

theease.org/conference

Abstract submission: May 31, 2011

Full paper (Option): Jul. 31, 2011

London International Conference on Education (LICE-2011) Nov. 7-10, 2011, London, UK

<http://www.liceducation.org/>

3rd International Conference on Science and Mathematics Education (CoSMEd) 2011

Nov. 8-10, 2011 @Penang, Malaysia

<http://www.recsam.edu.my/cosmed/index.html>

NARST 2012 conference

March 2012 @ Indianapolis, IN USA

Contributors to this issue

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For more information: Just visit the EASE Website <http://theease.org/> Don't hesitate to contact me for further information. Young-Shin Park (Chosun University, Korea, easeheadquarter@gmail.com)

