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NATIONAL  
INSTITUTE OF  
EDUCATION  
SINGAPORE

An Institute of Distinction

# news

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# 2 CONTENT

## CORPORATE DEVELOPMENT

- 3 Keynote Addresses
- 4 A Proud Moment for NIE/NTU, Singapore: APERA 2008
- 5 World Educational Researchers Meet at NIE/NTU, Singapore
- 6 Transforming Teacher Education  
English Language & Literature Academic Group Hosts  
13<sup>th</sup> International ESEA Conference
- 7 NIE/NTU, Singapore Congratulates Bahrain Ministry of Education on  
Opening of Bahrain Teachers' College  
Welcome Back Dr Quek!
- 8 Sweden's Education Minister Visits NIE/NTU, Singapore  
NIE/NTU, Singapore Impresses Home Team Academy & Civil  
Defence Academy  
An Experience for Sunburst Youths
- 9 NIE Staff Awards 2008  
Paving the Way for Teacher Education in the 21st Century

## SPECIAL FEATURE

- 10 NIE Soars with 2008 Milestones

## RESEARCH: SPECIAL FOCUS ON E-PEDAGOGIES

- 12 Research@NIE  
NIE/NTU, Singapore Lauded for Aeroponics Research  
NIE/NTU, Singapore featured in New US Study on Mobile Learning
- 13 Physics in Motion  
i-Cubes Study on Children's Concept Development
- 14 Enhancing Science Learning through Modeling and  
Visualisation Technologies  
Use of IT in Games Assessment and Learning
- 15 Art in Second Life  
Blogs as Learning Spaces in Education  
General Paper Takes on a Second Life
- 16 Enhancing Practicum with Wikis

## ALUMNI AFFAIRS

- 16 The New Zealand School Experience
- 17 New Dimensions in Humanities Education  
Citi-NIE Financial Education Conference 2008
- 18 Leaders in Education Programme 2008  
Master of Educational Administration Farewell Dinner 2008
- 19 A Dose of Belief and a Touch of Passion  
126 Teachers Graduate from Management and  
Leadership Programme

## DO YOU KNOW?

- 20 NIE Alumni Movie Screening: Madagascar!  
Calendar of Events

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## Editor's Say

In this first issue of 2009, the NIE News Team would like to wish all readers a very Happy and Blessed New Year! This issue has a special feature presenting a summary of the milestones we have achieved together in 2008 but more importantly, we showcase the myriad of technology-enabled research @NIE that result in new electronic pedagogies shown to be effective in engaging our learners.

The international repute of NIE as an institute and of individual faculty colleagues within the institute stands out in this issue as NIE has, through the months from November – December 2008, played host to landmark conferences in Education and other key academic content disciplines. Invited keynote addresses at international conferences to faculty holding senior management positions, NIE's Director Professor Lee Sing Kong's revolutionary aeroponics technology being recognised as the third most important technology for building a Green Ecopolis in 2050 attest to the high quality of our faculty at NIE/NTU, Singapore.

Finally, do give the special coverage on E-pedagogies a careful scrutiny. Read about smart sensors on cubes used to compare cognitive, motor and social development of a autistic child against a healthy control, see if you take to 'Second life' for enhancing student's critical thinking abilities or building their collaborative skills and try Wikis as a means to enhance the Practicum experience.

Also be inspired by how values are taught in three schools in New Zealand as holistic education of our students becomes a central focus of our education mission.

In signing off as your friendly guest editor (defined as one who edits two issues of the NIE News), I hope that you will continue to contribute and share all that you do with us!

**Assoc Prof Low Ee Ling**  
Sub-Dean, Degree Programmes  
February 2009

### Clarification/Apology

In the October 2008 issue of NIE News in the article 'Financial Literacy and Enterprising Retailing Team Challenge 2008', we mentioned that the Elements of Business Skills (EBS) is a GCE 'O' Level subject. EBS is a GCE 'N' Level subject. We are sorry for the error.

## Keynote Addresses

NIE/NTU, Singapore is sure gaining international recognition for its expertise in teacher education, judging from the numerous keynote presentations by its academic staff at renowned international conferences. Check out the latest two conferences attended by our staff.

**Who?** Our very own, Associate Professor Tan Oon Seng, Dean, Foundation Programmes Office

**What?** Keynote Address at the 2nd Beijing International Forum on Citizenship Education for Children and Youths

**When?** 22 to 24 October 2008

**Where?** Beijing, People's Republic of China (PRC)



(From left) Dr Zhang Tiedao, Vice-President, Beijing Academy of Educational Sciences, Assoc Prof Tan Oon Seng and Prof Shi Long, President, Beijing Academy of Educational Sciences

Some 300 delegates attended the conference organised by the Beijing Academy of Educational Sciences and sponsored by the Beijing Municipal Education Committee of the Communist Party of China.

Assoc Prof Tan gave the plenary keynote entitled 'Developing Social and Emotional Capacities for Youth Today: Challenges of the 21st Century', touching on the importance of positive emotional development through nurturing environments in families, communities and schools.

Assoc Prof Tan also co-chaired the forum on Citizenship Education and Youth Development while Dr Teo Chua Tee from NIE's Psychological Studies Academic Group gave an expert concurrent session on education towards global citizenship and personal responsibility.

The conference concluded with recommendations for enhancing citizenship education for China, such as having visionary principals as leaders of good citizenship, developing teachers as active role models and teaching good moral reasoning and critical thinking at an early age.



Prof Paul Teng (third from left) with officials from the Economic Section, US Embassy, Hanoi (the local sponsors of the Conference Series)

**Who?** Professor Paul Teng, Dean, Graduate Programmes and Research Office

**What?** Keynote Addresses at Viet Biotech Conference series

**When?** 29 September to 3 October 2008

**Where?** Ho Chi Minh City, Can Tho, Hanoi and Vien Yen City, Vietnam

Professor Paul Teng delivered four anchor keynotes in a series of conferences entitled 'Biotechnology: Growing the Future', organised by the Embassy of the U.S.A., Hanoi, Vietnam. The conference series was held over one week from 29 September to 3 October 2008 in four cities - Ho Chi Minh City, Can Tho City, Hanoi and Vien Yen City.

Prof Teng was selected for this conference series by the US Department of State, US Speaker and Specialist Grant Program in recognition of his expertise in the commercial and food security applications of plant biotechnology. The conference series attracted participation from over 500 scientists, government officials, academics, media and politicians.

## A Proud Moment for NIE/ NTU, Singapore: Hosting of the 2nd Asia-Pacific Educational Research Association (APERA) Conference 2008

By Assoc Prof Low Ee Ling, Foundation Programmes



*Arriving for APERA 2008 as Guest of Honour, Senior Minister of State, Ministry of National Development & Ministry of Education, Ms Grace Fu (centre)*



*Delegates were treated to a rousing number by students of St Margaret's Secondary School*

assessment practices. New activities, technologies and approaches are constantly being introduced into our classrooms locally and globally. The idea of innovation is critical for continuous improvement and to enable growth in our educational achievements. Thus, this conference was most timely for addressing issues of interest to educational researchers, policy makers and practitioners across different contexts, disciplines and schools.

APERA 2008 brought together over 1,000 participants from 39 countries across the globe to discuss innovative ways to facilitate teaching and learning that will ultimately benefit the child in the classroom. A panel of world-renowned scholars in the educational arena from England, America, Israel and Asia gave keynote addresses on a wide range of educational issues that aimed to influence the ways we think about teaching and learning.



From 26 to 28 November 2008, NIE/NTU, Singapore was the proud host of the 2nd Asia Pacific Educational Research Association (APERA) Conference 2008. Jointly organised by NIE/NTU, Singapore with the Asia-Pacific Educational Research Association and the Educational Research Association of Singapore (ERAS), this conference is held bi-ennially with the aim of promoting educational research, knowledge advancement and policymaking.

Gracing the event was Ms Grace Fu, Senior Minister of State, Ministry of National Development and Ministry of Education. In her opening address, SMS Grace Fu highlighted that innovation is critical for continuous improvement, to enable growth in educational achievements and most importantly, to bring out the best in our children. She also mentioned the emphasis on reflective practice in Singapore's education system and the Ministry's investment in educational research both at the school level and at NIE/NTU, Singapore.

The theme of the conference 'Educational Research for Innovation and Quality in Education: Policy & Pedagogical Engagements across Contexts' reflects the world's commitment to developing innovative learning and

### Dr Ruth Wong Memorial Lecture

By Assoc Prof Low Ee Ling, Foundation Programmes

On the second day of the conference, the annual Dr Ruth Wong Memorial Lecture was delivered by Professor David Tzuriel of Bar Ilan University, Israel on "Mediating Learning Strategies and Children's Cognitive Plasticity". This conference was held in memory of Dr Ruth Wong Hie King, the first Director of the former Institute of Education and a role model known for her quest for excellence in education.

Another highlight of the conference was the assumption of the APERA Presidency by Assoc Prof Tan Oon Seng, Dean, Foundation Programmes. Assoc Prof Tan's appointment is in recognition of the international standing of his research and publications.

Two inaugural APERA fellowships were also bestowed on Professor Colin Power and Professor Yin Cheong Cheng for their lifelong and outstanding contribution to the field of education and educational research.

Another inaugural award, the APERA-Educational Research in Policy & Practice young researcher award was given to the best abstract submitted by scholars aged 35 or below. This award went to a young Filipino scholar, Mr Lemuel Toledo who co-authored a paper with Minie Rose Papinid entitled 'Towards Developing Service Learning Projects for the Community Members of Jaime Hilario Integrated School (JHIS) in Bagac, Bataan, Philippines'.

The three-day conference ended on a high note with a closing plenary that comprised a panel of keynoters to address questions from the audience.



*Assoc Prof Tan Oon Seng (left) being officially appointed as President of APERA 2008-2010 by outgoing President, Professor Yin Cheong Cheng of the Hong Kong Institute of Education*

## World Educational Researchers Meet at NIE/NTU, Singapore

By Assoc Prof Low Ee Ling, Foundation Programmes

On 24 and 25 November 2008, Presidents of over 20 educational research associations from around the world gathered at NIE/NTU, Singapore to jointly set up the World Educational Research Association (WERA), a global body of research associations which aim to advance educational research as a scientific and scholarly field. As host of this meeting, NIE Director Professor Lee Sing Kong gave a warm welcome to the WERA delegation.

With the formation of the WERA, research and findings of a particular educational research association can be quickly disseminated to all other research associations so that the best practices of any educational system can be shared globally. The greater ease of collaborations between partner educational associations will ultimately lead to capacity building in the area of educational research.



*World Educational Research Association (WERA) delegates posing with NIE Director, Prof Lee Sing Kong (Second Row: 6th from left)*

Four documents were finalised at the November meeting in Singapore: the WERA Constitution, the Three-Year Plan for WERA Finances and Financing, the Three-Year Program Plan and the Transition Plan from WERA in Formation to WERA. The next WERA meeting is expected to take place in San Diego, California from 18 to 19 April 2009, directly after the 2009 American Educational Research Association (AERA) Annual Meeting.

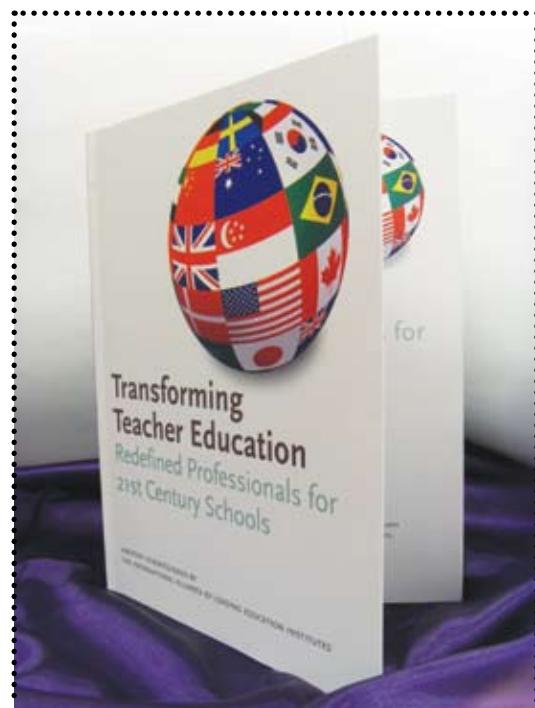
## Transforming Teacher Education

By Assoc Prof Steven Tan, Graduate Programmes & Research Office

With the growing recognition that teacher quality is critical in preparing students for a society undergoing far-reaching economic and social changes, the need for policy guidelines and strategies to strengthen teacher preparation is even greater. Transforming Teacher Education: Redefined Professionals for 21st Century Schools, a report commissioned by the International Alliance of Leading Education Institutes identifies several key propositions on what is likely to work best in transforming teacher education based on available evidence and scholarship from member countries. Specifically, the report covers issues pertaining to:

- (a) Trends and issues in teacher education
- (b) Redefined professionalism
- (c) Pathways into and Preparation for Teaching
- (d) Induction and Professional Development, and
- (e) Partnerships for Teacher Education.

Please visit [www.intlalliance.org](http://www.intlalliance.org) for full report.



## English Language & Literature Academic Group Hosts 13th International ESEA Conference

By Assoc Professors Lawrence Zhang & Rani Rubdy, English Language & Literature Academic Group



Globalisation has not only led to the spread of English around the world but also to the development of varieties of the English language. With English on their minds, over 300 delegates from around the world attended the 13th International Conference on English in Southeast Asia (ESEA 2008) from 4 to 6 December 2008 in NIE.

Hosted by the English Language & Literature academic group, the ESEA conference series was first initiated at NIE

in 1996 with the modest aim of documenting the systematic patterns and features of the varieties of English in Southeast Asia and their functional roles within the existing frameworks. ESEA 2008 expanded its scope to cover a wide range of issues and topics of common interests to move beyond a purely monolithic perspective of English to a more pluralistic concern with Englishes in the region and the emergent literatures written in English within this perspective. The three-day conference attracted 320 presenters and participants from 27 countries from Australasia, Southeast Asia, Americas, Africa and Europe.

Professor Er Meng Hwa, Senior Associate Provost of the Nanyang Technological University graced the conference. The invited plenary speakers were internationally renowned scholars in the field: Professors Jean Aitchison (University of Oxford, UK), John McRae (University of Nottingham, UK), B. Kumaravadivelu (San Jose State University, USA), John Ayto (University of Surrey, UK), and Rajeev Patke (National University of Singapore).

The 14th International ESEA Conference will be held in Manila, Philippines, in November 2009.

# NIE/NTU, Singapore Congratulates Bahrain Ministry of Education on Opening of Bahrain Teachers' College

By Cherie Lek, External Programmes Office

NIE/NTU, Singapore was invited to witness the official opening of the Bahrain Teachers College (BTC) on 5 November 2008. The BTC is an autonomous college within the University of Bahrain tasked to train new and existing teachers for Bahrain. The first intake of Postgraduate Diploma in Education and Bachelor of Education students were enrolled in September 2008.

His Highness the Crown Prince, Sheikh Salman Bin Hamad Al Khalifa officiated the event. Professor Lee Sing Kong, Director, NIE, Professor Er Meng Hwa, Senior Associate Provost, NTU, Team Leaders, Assoc Prof Tan Oon Seng and Assoc Prof Lee Ong Kim, Asst Prof Trivina Kang attended the opening.

Since March 2007, NIE/NTU, Singapore has been working with the Bahrain Ministry of Education on the country's teacher education reform initiatives. Administered by NIE's External Programmes Office (EPO), the Institute was closely involved in teacher recruitment, performance assessment, establishing a teachers' training college (including curriculum development) and developing a professional development framework.

NIE/NTU, Singapore established an office in Bahrain which is headed by Asst Prof Harry Tan from Physical Education & Sports Science Academic Group and Mr Jumaat Bin Musawood, a retired superintendent from the Ministry of Education, Singapore.

## Welcome Back Dr Quek!

With 45 years of teacher education behind him and a familiar face to the NIE Family, Prof Quek Jin Jong returned to NIE in December 2008 and resumed his role as Principal Officer. Prof Quek was a teacher for 18 years and served as Vice-Principal of a junior college before joining teacher education in 1985. In April 2007, Prof Quek assumed his position as Vice-Chancellor with the Abu Dhabi Education Council (ADEC), United Arab Emirates. There, he led a team in setting up the infrastructure of Emirates College of Advanced Education (ECAE).

**NIE News:** Can you briefly share with us your most memorable moment when you were in Abu Dhabi as the Vice-Chancellor of the ECAE?

### Prof Quek:

Since 2004, NIE has been spreading her wings beyond the shores of Singapore in conducting professional development courses for the teachers and education leaders of the ADEC, United Arab Emirates.

Our team started the Bachelor of Education (BEd) and Post Graduate Diploma in Education (PGDE) programmes and mounted professional development courses for the teachers in Abu Dhabi. At the same time, I had to recruit both academic and administrative staff and develop the physical and IT infrastructures of the ECAE. Time flew with all these tasks on my hands.

Well, the most memorable moment was the opening of the

ECAE and the launch of the BEd and PGDE programmes with more than 320 students and 70 staff. It was even more meaningful when Prof Lee Sing Kong and Prof Gopinathan joined me in Abu Dhabi to witness the occasion.

**NIE News:** What are your plans now that you are back as the Principal Officer of the NIE?

### Prof Quek:

I returned to the NIE in December 2008, after a few months break from work. My present scope of duties in the Director's Office covers the Human Resource, Finance and Strategic Planning and Corporate Services Departments.



My plan is to assist the Director in overseeing a number of initiatives which straddle across the academic and administrative wings. The medium and long term plans are to work with the NIE Senior Management and Heads to implement recommendations by the various taskforces and ensure a smooth transition of leaders in the next three to five years.

## Sweden's Education Minister Visits NIE/NTU, Singapore

NIE/NTU, Singapore was honoured to have Sweden's Education Minister, Mr Jan Björklund (centre), and his delegation visiting the institute on 19 November 2008. The team was here to learn more about how Singapore's several educational institutions work together on higher education as well as in teacher education.



## NIE/NTU, Singapore Impresses Home Team Academy & Civil Defence Academy



(From left) SAC Derek Pereira, Prof Lee Sing Kong & COL Christopher Tan

## An Experience for Sunburst Youths



On 18 December 2008, Senior Assistant Commissioner (SAC) Derek Pereira, Deputy Chief Executive, Training and Development, Home Team Academy and Colonel (COL) Christopher Tan, Director, Civil Defence Academy visited NIE/NTU, Singapore to find out more about the model of teacher education.

For COL Tan, "The visit has given our Academy staff good insights and first-hand knowledge of NIE's role in transforming our teacher training system to meet future challenges. We have certainly benefited from 'The Classroom of the Future' presentations & sharing, and are indeed very impressed by the progress NIE has made both locally and its standing in the international arena."

As part of the Sunburst Youth Camp, more than 150 students from 14 countries paid a visit to NIE/NTU, Singapore and gained insights into Singapore's teacher education system. Besides visits to the Greenhouse and DNA Lab, the guests were treated to a science demonstration by NIE staff.

The Sunburst Youth Camp is one of the projects organised by the Singapore Technologies Endowment Programme (STEP), a charitable organisation under Temasek Holdings. STEP aims to reach out to the youth of the countries in this region through activities like the Sunburst Youth Camp, which provides opportunities for the youth of Asia to come together for a week of sharing and bonding.

Mr John De Roza, General Manager of STEP, was very impressed by NIE's hospitality. "Your presenters were very well prepared and they made their presentations not only informative but interesting...this is the best visit to the universities which the SYC participants had experienced."

## NIE Staff Awards 2008

By Ms Tan Lay Hua & Mrs Tay-Sung Bee Eng, Human Resource

Recognising teaching and service excellence for both teaching and non-teaching staff, NIE/NTU, Singapore held the NIE Staff Award Ceremony on 25 November 2008.

The Excellence in Teaching Commendation was presented to teaching staff and the inaugural Excellence in Service Award to non-teaching staff who championed or exhibited excellence in service. The winners were nominated by their students and/ or colleagues.

### Award winners!

Mrs Belinda Teo was Secretary to Dean and Operations Manager, Office of Education Research who managed the general administration and operations of the office. She

is dynamic and proactive in discovering ways to improve efficiency in her workplace.

Mr Rick Chang is a passionate ICT Engineer with Centre for User Support, who goes the extra mile to ensure that equipment is in good working condition. Besides being knowledgeable in his area of work, Rick is also obliging to last-minute requests from his fellow colleagues.

### Commendation

23 NIE teaching staff and four non-teaching staff received commendation for displaying excellent practices in their respective areas of work. Please visit NIE News online at [www.nie.edu.sg/nienews](http://www.nie.edu.sg/nienews) to find out who they are!



## Paving the Way for Teacher Education in the 21st Century

By Jennifer Joseph & Joy Camille R Atienza, Strategic Planning & Corporate Services & Assoc Prof Low Ee Ling, Foundation Programmes

On 13 November 2008, NIE/NTU, Singapore kick-started the Programme Review and Enhancement (PRE 2008) initiative, an institute-wide strategic effort to enhance Singapore's model of teacher education.

The PRE 2008 was initiated in response to two factors - the Ministry of Education's latest educational initiatives and the rapid pace of globalisation and technological improvement. In addition, the review dovetails the MOE's Professional Development Review efforts.

Besides re-examining the underlying principles and ethos underpinning the design of our current programmes, the

initiative also seeks to explore new models and approaches. The aim is to equip teachers with the necessary skills, knowledge and dispositions to function effectively in the 21st century.

Spearheaded by Assoc Prof Tan Oon Seng, Dean, Foundation Programmes and Prof Paul Teng, Dean, Graduate Programmes and Research, the PRE 2008 looks at five areas, namely Holistic Education, Theory-Practice Linkage, New Pedagogies, Assessment and Evaluation, and Initial Teacher Preparation – Teacher Professional Development Continuum. The final report is slated to be out in June 2009.

# 10 SPECIAL FEATURE

## NIE Scores with

### NIE-Temasek Foundation Leaders and Educators in Asia Programme for the Philippines

...NIE/NTU, Singapore partnered Temasek Foundation to offer the Leaders and Educators in Asia Programme as part of the institutes' education outreach in Asia Pacific. The programme started with the Ateneo de Manila University in Philippines to train 80 educators.

### NIE-Temasek Foundation Educational Leadership Programme for Vietnam

...NIE/NTU, Singapore worked with the National Institute of Education Management in Vietnam to train 480 Vietnamese school leaders and senior education officials.

### Building Educational Bridges (BEB): Innovation for School Leadership

...between NIE/NTU, Singapore and Institut Aminuddin Baki, Malaysia. BEB was developed to enhance principals' leadership capabilities.

### MOU with Teachers College, Columbia University, USA

...The link-up with one of the world's leading teacher education institutions involves faculty exchanges and co-teaching courses.

01

January

02

February

03

March

04

June

05

July

### NIE-NLB Embarks on a New Malay Language Programme

...that comprises of seminars and book discussions to create a robust intellectual culture amongst the Malay community in Singapore.

### Unveiling of the Singapore Olympic Academy's Olympic Mural



...Dr Jacques Rogge, President of the International Olympic Committee was in Singapore to sign the inaugural Youth Olympic Games 2010 contract. NIE/NTU, Singapore has been chosen as the Games Village!

### Workshop Addresses Importance of Forests In Mitigating Climate Change

...NIE/NTU, Singapore, the Center for Tropical Forest Science, a centre of the Smithsonian Tropical Research Institute, and the Arnold Arboretum of Harvard University hosted a three-day workshop to discuss environmental conservation in Singapore and the region.

### Nurturing Talents for the Global Community – NIE Hosts the 10th Asia-Pacific Conference on Giftedness



...for the first time in Singapore. The international conference was well-attended by over 300 foreign delegates from 34 countries and 1,300 local counterparts involved in gifted education.

## 2008 Milestones

### Leading Educators Seek to Enhance Teacher Education

...through a study led by NIE/NTU, Singapore that surveyed member countries in the International Alliance of Leading Education Institutes, a report was produced to highlight key trends and strategies to enhance teacher education.

### The NIE Director's Race Raises close to \$80,000



...for the Singapore Children's Society, with strong participation from NIE staff and generous sponsors.

**08**

August

**10**

October

**09**

September

### Launch of the Singapore Centre for Chinese Language

...for the training and development of Chinese Language teachers and a test-bed for innovative ideas on pedagogy and learning in the teaching of Chinese Language.

### NIE/NTU, Singapore, MOE and University College London Launched the Inaugural Diploma in Educational Psychology

...to increase the pool of educational psychologists who will work with schools and teachers to maximise the potential of children with various learning disabilities.

### NIE/NTU, Singapore Collaborating with Boston College, USA

...that covers possibilities of student exchanges and research collaborations.



### NIE/NTU, Singapore was Awarded Bronze Award in Community Chest Award 2008

...for active support of charity through fund raising efforts.

### NIE/NTU, Singapore Hosts the 13th International Conference on English in Southeast Asia

...which attracted over 300 participants from 27 countries to deliberate on issues pertaining to English Language and Literature in academic, educational and work contexts.

**12**

December

**11**

November

### The Official Opening of Bahrain Teachers' College



...partnership between NIE/NTU, Singapore and the Bahrain Ministry of Education to establish Bahrain Teachers' College.

### World Educational Researchers Meet at NIE/NTU, Singapore

...the 2nd Asia Pacific Educational Research Association (APERA) Conference assembled over 1,000 participants from 39 countries to discuss innovative ways to facilitate teaching and learning.

...NIE/NTU, Singapore plays host to the World Educational Research Association (WERA) meeting.

## Research@NIE

Research@NIE is now poised to take off in a big way with NIE gaining international recognition not only in teacher education, but also for our research work. Getting off to a good start, the institute's research into aeroponics technology garnered an award for its eco-friendliness in a Discovery Channel documentary (see story below). And research papers written by NIE colleagues have attracted the attention of international researchers from as far away as Norway!

## NIE/NTU, Singapore Lauded for Aeroponics Research

By Lynn Chew, Public, International & Alumni Relations

Revolutionary aeroponics technology in urban roof top farming took the top spot in the first series of a six-part documentary – Ecopolis aired from 3 December 2008 to 7 January 2009 on Discovery Channel.

Hosted by University of California professor Dan Kanmen, an American climate-change expert and Nobel laureate, Ecopolis featured four different technologies that aim to resolve environmental issues such as pollution, oil depletion and food and water shortages by the year 2050.

Featured in the documentary, NIE Director Professor Lee Sing Kong's activist idea of urban farms in the heart of the city will not only result in making Singapore self-sufficient in high-quality vegetables and fruits, but more importantly, reduces carbon emissions by a significant quarter, thus lessening global warming.

Overall, urban farming with aeroponics is considered the third most important technology for building a Green Ecopolis in 2050.



## NIE/NTU, Singapore Featured in New US Study on Mobile Learning

By Assoc Prof Looi Chee Kit, Centre of Excellence in Learning Innovation

A new report, the Pockets of Potential, documenting the untapped potential of mobile learning was issued in January 2009 by *The Joan Ganz Cooney Center at Sesame Workshop* based in the United States. The report, drawing on market trends and model programs, outlines the first-ever national mobile learning strategy. Assoc Prof Looi Chee Kit, Head, Centre of Excellence in Learning Innovation, was one of those interviewed by the report writer.

The Pockets of Potential report found that just as Sesame Street transformed television into a revolutionary learning tool for preschoolers, mobile learning technology may represent the next frontier. It cited more than 25 notable handheld learning research projects in the US and abroad as early evidence and examples of how mobile devices may help re-define teaching and learning in the decade ahead. Two NIE research projects – the 3Rs project and

the Seamless Mobile Learning project – are amongst those cited in the report.

The 3Rs project investigated the use of handheld computers to facilitate students' inquiry-based learning of environmental issues. Using handheld computers during field trips, 480 students from six primary schools in Singapore examined the process of waste production and the impact of the "Three Rs" (Reduce, Reuse, and Recycle) on the environment.

The Seamless Mobile Learning project, in collaboration with Nan Chiau Primary School, involves giving handheld devices to Primary three students to see how they would use handheld devices inside and outside of the classroom. Their use of handhelds will be closely observed to better understand the notion of seamless learning, whilst redefining the learning parameters.

## Physics in Motion

By Munirah Bte Shaik Kadir, Centre for Research in Pedagogy & Practice, Assoc Prof Foong See Kit, Natural Sciences & Science Education Academic Group & Dr Darren Wong, Curriculum Planning & Development Division, Ministry of Education

*Physics Education*, a well-read international journal amongst physics educators, will be publishing two papers related to the development of instructional materials undertaken by NIE in collaboration with the Ministry of Education, Singapore.

The research and development team comprised the Centre for Research in Pedagogy and Practice (CRPP) research associates, Mr Ho Shen Yong and Mr Lim Chim Chai, Curriculum Planning and Development Division (CPDD) officers Dr Darren Wong and Mr Terence Yeo, with Assoc Prof Foong See Kit from the Natural Sciences and Science Education (NSSE) Academic Group as the principal investigator. Together, they created a resource package supporting the learning and teaching of physics that was distributed to every junior college in Singapore.

The team successfully developed nine physics experiments



for the JC physics curriculum. The experiments comprised a wide range of topics in including optics, electromagnetism, waves and circular motion.

The laboratory notes of the experiments have been posted on the MOE website for teachers' easy reference. The results of the project were presented in two international conferences, International Science Education Conference 2006 in Singapore and Conference of Asian Science Education 2008 in Taiwan. A book chapter entitled 'Experiments for challenging topics in pre-university physics' was also published.

## i-Cubes Study on Children's Concept Development

By Prof Libby Cohen, Early Childhood & Special Needs Education Academic Group

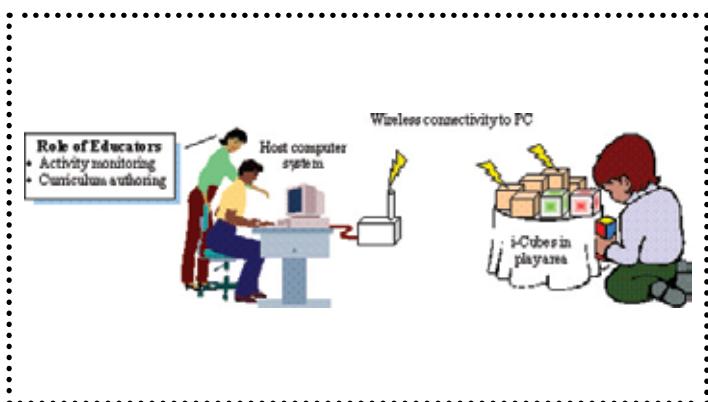
The Singapore National Research Foundation has awarded funding to an NIE and NTU research team for an interactive digital media (IDM) research project that focuses on the development of electronic play blocks called i-Cubes.

With the i-Cubes, the researchers aim to evaluate the efficacy of embedded technology support on two target groups, namely normal developing young children and children within the autism spectrum.

The i-Cubes are embedded with smart sensors, audio-visual outputs and wireless communication capabilities which are linked to a host computer. Through i-Cubes, the researchers will study children's concept development, social progress, and play behaviour.

The research team consists of Assoc Prof Susan Wright and Prof Libby Cohen from NIE/NTU, Singapore and Assoc Prof Wooi-Boon Goh, Assoc Prof Ian McLoughlin and Asst Prof Tan Su Lim from NTU.

According to Principal Investigator Goh Wooi Boon, "I believe the i-Cube is a very exciting and innovative application of computer engineering technology and I am looking forward to working with my colleagues at NIE because they are always so enthusiastic about new ideas that can help children learn better."



*The proposed i-Cube Educational System*

# Enhancing Science Learning through Modeling and Visualisation Technologies

By Asst Prof Zhang Baohui, Learning Sciences and Technology Academic Group and Learning Sciences Laboratory, Office of Education Research

Modeling has been promoted by major policy organisations such as Singapore's Ministry of Education as an important approach for science learning. The Learning Sciences Laboratory (LSL) in NIE/NTU, Singapore awarded the project Modeling and Visualisation Technologies (MVT) to promote inquiry-based and student-centred science learning in secondary schools in Singapore.



*The MVT project researchers, school teachers and heads of LSL at the launch of project in February 2007*

In collaboration with Maris Stella High School, Coral Secondary School and international partners, the research team focused on three MVT studies involving chemistry (Speed of chemistry reaction), physics (Electricity), and biology (Genetics). Preliminary results from the three studies showed that students improved their performance significantly by comparing pre- and post- content tests. Video recordings of student computer screen activities and conversations, and other qualitative data revealed that students were highly engaged and developed a range of higher order thinking skills through computer-based modelling activities.

The three studies also had different learning sciences research agenda and the results proved informative for the revision of MVT-integrated science curriculum and assessment design. The two collaborating schools, Maris Stella High School and Coral Secondary School, and a new participating school, Greenridge Secondary School have submitted their support letters for a possible follow-up project (MVT II). The research team plans to develop guidelines for sustaining and scaling up technology-based innovations like the use of MVT in Singapore schools.

## Use of IT in Games Assessment and Learning

By Asst Prof Tom Browne, Physical Education and Sport Science Academic Group

The Physical Education and Sport Science Academic Group recently completed a two-year study into the use of IT in assessing game performance. Supported by Learning Services Laboratory (LSL), the research team conducted studies to assess if using video cameras assisted with the authentic assessment of the game, 'Tag Rugby'.

With the help of an assessment tool, the 'live analysis' of games captured on notes books resulted in improved understanding and fulfilling of functional roles and the students' appreciation of teachers expectation and curriculum outcomes.

The study suggests that using IT in the collation and analysis of game performance promote critical reflection and helps to develop a framework that promotes accelerated cognitive, affective and motor learning among students.



## Art in Second Life

By Mr Paul Lincoln and Ms Kehk Bee Lian,  
Visual and Performing Arts Academic Group

Recently, NIE's Visual and Performing Arts Academic Group conducted a real-time art lesson in a 3-Dimensional Multi-User Virtual Environment (3D MUVE) for a group of student teachers through a Problem-Based Learning (PBL) framework. A 3D MUVE, like Second Life, has vast potential for PBL and collaborative learning unlike in an art classroom, which is constrained by its physical space, cost of materials and manoeuvrability of objects. Moreover, learning through a 3D MUVE caters to the current learning styles of our students, who have grown up surrounded by computers and gaming.

Underpinning this class is our belief that trainee teachers need to have positive experiences learning in alternative, virtual environments and be familiar and confident in it before they can conduct similar Art lessons for their students



in the future. This class augmented face-to-face classroom interactions with technology. It embedded IT in pedagogy and not merely treated technology as an 'add-on'. In conclusion, the student teachers were able to autonomously manoeuvre in Second Life and in the process, collaborated with one another successfully in solving problems and learning spatial art-based skills.

## Blogs as Learning Spaces in Education

By Swarup Mukherjee, Physical Education & Sports Science Academic Group

The use of blogs has exciting implications in the field of education and educational technology. While teaching the module on Fitness and Conditioning, I had encouraged my student teachers to set up a blog on nutrition for children.

With some encouragement and motivation, the blog became a strong and interactive medium for communication, comments, critique and feedback on the different topics discussed in the classroom.

Each comment underwent the class' review, which made the students more thoughtful and critical about personal viewpoints. With time, I could detect an improvement in the thinking, writing and communication skills of the student teachers which was also reflected in their responses during classroom discussions.

Probably the most enriching outcome of blogs in my teaching has been to see the student teachers 'learning beyond NIE' as they continue to use the blog as a knowledge development platform after they have long graduated.

## General Paper Takes on a Second Life

By Assoc Prof Chee Yam San, Learning Sciences Laboratory, Office of Education Research and Asst Prof Caroline Ho, English Language & Literature Academic Group

The NIE-Innova Junior College Second Life study funded by NIE's Learning Sciences Laboratory (LSL) explored the use of the Second Life (SL) virtual environment and an LSL-developed structured argumentation board, Voices of Reason (VoR), to enhance students' argumentation and critical thinking skills in the General Paper.

45 final-year Arts and Science students from two classes role-played and discussed controversial issues based on the themes of euthanasia and globalisation. By thinking and acting on issues from another persona's perspective in Second Life, the students could identify with the characters whose roles they enacted.

The use of VoR provided scaffolds for argumentation structure and enabled students to develop concrete, grounded arguments for the topics under discussion. Although not all students consistently expressed viewpoints critically, there were emergent signs of attempts at crafting a distinct persona and projecting a particular voice of their own in the process of argumentation.

## Enhancing Practicum with Wikis

By Asst Professor Ashley Tan, Learning Sciences and Technologies Academic Group

“Wiki-wiki” is Hawaiian for “quick”. A wiki comprises Web pages that can be edited quickly and easily. I used a wiki because of my interest in the pedagogical possibilities and implications of Web 2.0 (blogs, wikis, podcasting, **social networking**, social bookmarking, **media sharing**, etc.) in teacher education.

While wikis are designed **primarily** for collaborative writing, their ease of use and open nature gives rise to other uses. One wiki was used by student teacher to maintain electronic portfolios during their practica. This exploratory study started

in January 2007 and initially aimed to replace traditional practicum files. However, the wiki offered some additional affordances (see the 5 Cs that follow). The wiki pages have served as 1) a communications channel, 2) a checking/monitoring mechanism, 3) a critiquing tool, 4) a platform for contemplation (reflection), and 5) a central repository of ideas and lesson plans.

It remains to be seen if the wiki may be used as a platform to build community or to promote collaboration. The practicum wiki is at <http://nie-practicum.pbwiki.com>.

## ALUMNI AFFAIRS

## The New Zealand School Experience

By Assoc Prof Anthony Seow, English Language & Literature Academic Group

The teaching of values has often been a moot point in schools if only because many teachers ask if values can really be taught, or are they simply caught. Even if such abstract intangibles as values can be taught, many are not too sure how it can be done well.

Perhaps the three schools in New Zealand, which my Management and Leadership in Schools (MLS) course participants and I (as their facilitator) visited in September 2008 have a few things to teach us.

The three schools - Roslyn School and College Street Normal School in Palmerston North, and Huntley School in Marton – treated us to a host of school programmes that characteristically reflect a fundamental aspect of the New Zealand way of life. In their school curricula, all the three schools teach universal moral values (or their so-called ‘moral intelligences’) and student leadership.

### Roslyn School

While working with the school teachers or with their peers, moral values drive everything the students do in the classroom, in the playground and out of school. There are at least seven moral intelligences infused into the social life of the students at school rather than being diligently taught to them as a school subject: empathy, conscience, self-control, respect, kindness, tolerance and fairness. The students had to “examine how their actions and choices contribute to a socially healthy classroom and playground.”

### College Street Normal School

Particularly prevalent in College Street Normal School are the 16 habits of mind (Costa & Kallick, 2000) and the school’s unique “habits of heart”, not unlike the moral values observed in Roslyn and Huntley. These habits of mind and of heart remain a constant driving force that contribute to the high academic success rate of the students in College Street Normal School.

### Huntley School

At Huntley School, a boarding school for boys between the ages of nine and 13, the same values and philosophy could be felt and seen to permeate the whole school as the teachers prepared the boys for “the adventure of life”. A tour led by three student leaders clearly demonstrated the spark and synergy of the school motto.

We casually asked the students what their greatest gift was from Huntley School, and their immediate response was “life values”. It was apparent to us that this school is not just preparing the boys for the adventure of life, but for an adventure about life and of life, for life!

The visits to schools in New Zealand proved to be an eye-opener for many of us. It isn’t that values education and habits of mind are anything new or unheard of in our part of the world. Rather, it is the way that the three schools in New Zealand have skillfully worked these matters of heart, mind and attitude into their school curriculum that counts.

## New Dimensions in Humanities Education

By Dr Sim Yong Huei, Humanities & Social Studies Education Academic Group



*Guest of Honour, NIE Director Prof Lee Sing Kong (third from left) with key speakers and Head, HSSE Assoc Prof Ang Cheng Guan (extreme right)*

With the initial excitement of the new millennium slowly subsiding, one realises that the beginning of the next thousand years brings forth its fair share of hopes and challenges – technology is making new advances but old problems have re-emerged in new forms too!

The humanities have an obligation to the soul of a human being – they need to take up their “humanistic responsibility” and play a side-by-side role with technology and the sciences to craft the path of the future. These are the views put forth by NIE Director Prof Lee Sing Kong and distinguished speakers at the New Dimensions in Humanities Conference, held in Nanyang Girls’ High School on 18 and 19 November 2008. Co-hosted by NIE’s Humanities and Social Studies Education (HSSE) Academic Group and Nanyang Girls’ High School, the conference encompasses three main areas of humanities (geography, history and social studies) and pedagogy, including new developments and challenges.

The breadth of the participation saw contributing voices from the local schools and museums as well as overseas institutions from the USA, the Philippines and Vietnam. The panels did not just focus on content updates in the disciplines of the subjects per se. More importantly, they highlighted how the messages and awareness can be effectively transmitted to the classrooms. After all, it is the young charges in these classrooms who will eventually need to face and assume the responsibilities of our world.

## Citi-NIE Financial Education Conference 2008

By Dr Koh Noi Keng, Humanities & Social Studies Education Academic Group & Chair, Citi-NIE Financial Literacy Hub

Aptly themed ‘Breaking New Frontiers’, the inaugural Citi-NIE Financial Education Conference 2008 on 21 and 22 November 2008 served as a platform for educators and researchers to showcase and share best practices to promote financial education in Singapore. The conference marks the first anniversary of a successful year for the Citi-NIE Financial Literacy Hub for Teachers (The Hub).

The Guest of Honour for the conference, Miss Ho Peng, Director of Curriculum Planning and Development Division (CPDD), Ministry of Education, Singapore, said, ‘It is critical that we endeavour to equip our young with financial literacy skills. Parents, schools and society at large have to constantly engage our young in meaningful conversations, exciting programmes and reflective activities to inculcate in them the values of regular savings, prudent spending within one’s means and early financial planning for future needs.’

The Hub looks forward to collaborating with more schools to bring this meaningful life skill to our students in schools.

Through collaborative research and exchange of resources, The Hub will scale greater heights in promoting innovative practices in financial education.

Please visit <http://www.finlit.nie.edu.sg/conference2008/> for more information.



*Miss Ho Peng, Director CPDD, MOE (8th from left), NIE Director Prof Lee Sing Kong (10th from left), and Mr Jonathan Larsen, Country Head and Citi Country Officer Singapore (6th from left) with the School Excellence Award recipient-school representatives who had successfully completed The Hub’s programmes in 2008*

## Leaders in Education Programme 2008

By Jolene Tan, Public, International & Alumni Relations



From left, Mdm Janis Lee Ling Poh, Mdm Thian Ai Ling  
Mrs Chaillan Mui Tuan

40 senior educators received their Leaders in Education Programme (LEP) certificates on 10 October 2008 for successfully completing the six-month full-time executive programme conducted by NIE/NTU, Singapore. Gracing the occasion was Dr Ng Eng Hen, Minister for Education & Second Minister for Defence.

Participants of the LEP were specially selected by the Ministry of Education (MOE) for principalship. Joining the cohort this year were also four overseas participants from Brunei nominated by the Ministry of Education, Brunei.

The programme focuses on innovation and the creation of new knowledge, including an industrial attachment, seminars with international experts and an overseas learning experience. Through these experiences, the participants are able to reflect and realise how to lead their schools and bring them to new heights, giving teaching, learning and leading a whole new realm!

The three award winners were:

- **Mdm Thian Ai Ling**  
Presented the Lee Kuan Yew Leaders in Education Programme Award for demonstrating the best overall performance in the LEP.
- **Mdm Janis Lee Ling Poh**  
Presented the Academy of Principals Prize for Leadership Learning (Journal) for exemplifying the highest level of learning across the Leaders in Education Programme.
- **Mrs Chaillan Mui Tuan**  
Presented the Dr Ruth Wong Gold Medal Award (Innovation) for exemplifying the highest performance in the innovation project in the LEP.

The valedictorian, Mdm Thian Ai Ling, shared that the LEP had been an enriching and memorable experience that allowed participants to engage in meaningful learning and reflections, expand their professional network and articulate, clarify their perspectives on various educational issues.

## Master of Educational Administration Farewell Dinner 2008

By Assoc Prof Zhang Yenming, Master in Educational Administration Programme Coordinator, Policy & Leadership Studies Academic Group & Cherie Lek, External Programmes Office

On 6 October 2008 at the Orchard Hotel, NIE/NTU, Singapore saw the exuberant faces of 29 participants from the Master of Educational Administration (MEA) programme administered by the External Programmes Office. These 29 senior education officers from China have completed their one-year MEA programme with NIE/NTU, Singapore and are ready to go back to China to put into practice what they have learnt here. The graduation cum farewell dinner was a celebration of their success. The Guests of Honour were NIE Director Professor Lee Sing Kong and Madam Zhou Jianping, Education Counsellor from China Embassy.

The feelings of the cohort are best summarised by the cohort representative, Mr Wang Jun in his thank-you speech. He quoted ‘象宽阔的草原、一望无际的林海、湛蓝浩淼的大

海’ ‘滴水之恩，当涌泉相报’ , which means that their learning experience and knowledge gained in NIE is ‘so vast and so much that it is like a cosmic grassland, a never ending forest and a vast ocean. The students’ gratitude to NIE will forever remain in their hearts and they will repay NIE many times over’.

Started in September 2005, the MEA programme has produced 155 graduates to date. These graduates come from all parts of China, such as the cities of Beijing, Wuhan, Shanghai, Chongqing, Wenzhou and the provinces of Hebei, Hunan, and Hubei. This graduated batch is the fourth cohort of participants and the institute welcomed the fifth and sixth batch of participants from Shanghai and Hubei in November 2008.

## A Dose of Belief and a Touch of Passion

By Vivien Lee, Public, International & Alumni Relations

"Teachers should always trust that every student in their class can learn and do well to the best of his or her abilities. This is one of the fundamental values of teachers," said valedictorian Jose Paolo Boquiren in his speech at the NIE's Teacher's Investiture Ceremony on 21 January 2009.

Mr Boquiren was among the 313 newly qualified teachers who received their diplomas at the graduation ceremony attended by Guest of Honour, Dr Ng Eng Hen, Minister for Education and Second Minister for Defence.

The valedictorian went through his earlier education with average grades, and did not imagine that he would be appointed the cohort's valedictorian. Mr Boquiren feels that one of the qualities of a good teacher is to believe that every student has the potential to learn and do well in life.

For Miss Wong Hsien Hui, who majored in History, passion is another criterion that teachers should possess in order to excel in their job as educators. "In order to teach something



*Dr Ng Eng Hen, Minister for Education and Second Minister for Defence with the graduates*

well, you need to be passionate, not only towards students, but also towards the subject, as you will have to constantly update your knowledge."

Besides being one of the 313 graduands at the ceremony, Miss Wong was also the recipient of the History Association of Singapore Book Prize for her outstanding performance in History.

## 126 Teachers Graduate from Management and Leadership Programme

By Grace Tan, Public, International & Alumni Relations

On 3 February 2009, 126 teachers received their Management and Leadership in Schools (MLS) certificates after completing their four-month course at NIE/NTU, Singapore. The graduation ceremony was graced by Mr Winston James Hodge, Director, Training and Development Division, Ministry of Education.

The MLS programme is for departmental heads and school leaders who may in time assume significant managerial responsibilities in schools. Besides addressing issues and technologies impacting education, a major part of the MLS programme focuses on team learning, and curriculum innovation. Upon completion of the programme, the graduands will be ready to lead initiatives in curriculum advances, taking their schools to new levels of achievement.

Mr Foo Yong Howe of St Gabriel's Secondary School, who won the Dr Ruth Wong Medal for demonstrating the best



*Graduates of MLS 2009*

overall performance in the MLS programme, encouraged his fellow course mates to build a community of practitioners and to stay connected as a community of learners. "We must be bold to look at the existing curriculum and to lead a movement of curriculum by design and not by default. We go forth now, in hope and inspiration, all of us sharing a common legacy – all of us proud to be called teachers, curriculum leaders and most of all 'moulders of dreams' for we each shape hearts and lives of our youths – the present and future generations."

## NIE Alumni Movie Screening: Madagascar!

By Vivien Lee, Public, International & Alumni Relations

On the morning of 15 November 2008, the lobby of Eng Wah Suntec was bustling with activity, which was unusual for that time of the day. It was the NIE Alumni Movie Special, a movie screening specially organised for NIE alumni to meet and network with one another.

With a family theme in mind for our alumni to enjoy the weekend with their loved ones, the movie Madagascar: Escape 2 Africa was selected.

Our alumni and their family turned up in full force for the event, filling the 500 seats reserved for this occasion – children, friends and grandparents too! Check out some of the pictures that we have taken.

### Win a pair of Movie Tickets!

Email your mailing address and contact numbers to [alumni@nie.edu.sg](mailto:alumni@nie.edu.sg) and win a pair of movie tickets to our next movie screening in March! Closing date is 10 March 2009 so hurry!



*A family affair: Grandparents, spouses and children enjoying the weekend outing at our movie screening.*



## Calendar of Events

Event	Date	Venue	Contact Person
Design and Technology Conference	16 Mar 2009	NUS High School of Mathematics & Science	Asst Prof Jason Tan Email: <a href="mailto:jason.tan@nie.edu.sg">jason.tan@nie.edu.sg</a>
2nd International Conference on Character Development through Service and Experiential Learning	17 - 18 Mar 2009	NIE/NTU, Singapore	Ms Shirley Seet Email: <a href="mailto:servicelearning@nie.edu.sg">servicelearning@nie.edu.sg</a>
Opening of NIE Arts Gallery	19 Mar 2009	NIE/NTU, Singapore	Ms Chee Mei Jiun Email: <a href="mailto:meijiun.chee@nie.edu.sg">meijiun.chee@nie.edu.sg</a>
Curriculum Forum	15 May 2009	NIE/NTU, Singapore	Dr Jasmine Sim Email: <a href="mailto:jasmine.sim@nie.edu.sg">jasmine.sim@nie.edu.sg</a>
Redesigning Pedagogy International Conference 2009	1 - 3 Jun 2009	NIE/NTU, Singapore	Ms Shirley Seet Email: <a href="mailto:09edconf@nie.edu.sg">09edconf@nie.edu.sg</a>
Mathematics Teachers Conference	4 Jun 2009	NIE/NTU, Singapore	Assoc Prof Berinderjeet Kaur Email: <a href="mailto:berinderjeet.kaur@nie.edu.sg">berinderjeet.kaur@nie.edu.sg</a>
International Association for the Scientific Study of Intellectual Disabilities (IASSID) Asia-Pacific Regional Conference	24 - 27 Jun 2009	NIE/NTU, Singapore	Asst Prof Kenneth Poon Email: <a href="mailto:kenneth.poon@nie.edu.sg">kenneth.poon@nie.edu.sg</a>