



OER News Flash brings to you quarterly updates from the Office of Education Research at NIE

In the Media

NTUC First Campus and National Institute of Education embark on a 3-year research study on holistic Child Support Model for pre-school children from low-income families . [Read more.](#)



Promoting Student Well-being: Motivation, Engagement and Resilience

OER, in collaboration with the Academy of Singapore Teachers, organised a seminar on student well-being on 10 September 2018. [Read more.](#)



***Education in the City*—"Is it Real? How to Get Ahead of Fake News"**

OER held the fourth instalment of *Education in the City* on the topic of "Is it Real? How to Get Ahead of Fake News" on 18 September 2018. [Read more.](#)



Action Research Workshop at Rosyth School

To empower teachers to engage in research, Research Scientist Dr Lee Shu Shing conducted a series of Action Research workshops for teachers at Rosyth School. [Read more.](#)



NIE Staff Development Day 2018: A Future-ready NIE

NIE held its annual Staff Development Day on 1 October 2018. The theme of this year's SDD is *A Future-ready NIE*. [Read more.](#)



Inaugural Science of Learning Symposium: From Laboratories to Learning

OER, with support from the National Research Foundation, organised the inaugural Science of Learning symposium on 2 November 2018. [Read more.](#)



This Creature Called STEM – Science, Technology, Engineering and Mathematics – A Symposium

Speakers from NIE were part of a symposium discussing STEM education at The HEAD Foundation on 1 November 2018. [Read more.](#)

Visiting Consultants



OER Hosts Prof Michael Schratz

OER hosted Prof Michael Schratz from the University of Innsbruck, Austria, from 10 to 12 September 2018. [Read more.](#)



OER Hosts Adam Lefstein, Donald Peurach and Joshua Glazier

OER hosted A/P Adam Lefstein, A/P Donald Peurach, and A/P Joshua Glazier from 1 to 5 October 2018. [Read more.](#)



OER Hosts Associate Professor Paul Dux

OER hosted Associate Prof Paul Dux from the University of Queensland from 30 October to 2 November 2018. [Read more.](#)



OER Hosts Dr Andrew Gibson

OER hosted Dr Andrew Gibson from the Queensland University of Technology in Australia from 1 to 2 November 2018. [Read more.](#)



OER Hosts Dr Joshua Polanin

OER hosted Dr Joshua Polanin from American Institutes for Research from 5 - 9 November 2018. He is a Principal Researcher and his research expertise lies in systematic reviews and meta-analyses. [Read more.](#)



OER Hosts Dr Wendy Bokhorst-Heng from Crandall University

Dr Bokhorst-Heng is an Associate Professor of Education and her research expertise lies in bilingualism, language ideology, language policy and French immersion education. [Read more.](#)

Researchers' Achievements



Dr Tay Lee Yong Addresses Master Teachers on "The Use of Technology in Schools—Looking Backward to go Forward, is it a Déjà Vu?"

Dr Tay Lee Yong was invited to speak at the 3rd Master Teachers' Networking Meeting at the Umar Pulavar Tamil Language Centre. [Read more.](#)



Seamless Science Learning Receives Coverage in MOE's "Contact" Magazing

The concept of Seamless Science Learning has recently received coverage on "Contact: The Teachers' Digest", Issue 30, page 8, published by the Ministry of Education. [Read more.](#)



Dr Wong Lung Hsiang Delivers Keynote at International Conference on Learning Innovation

Dr Wong Lung Hsiang delivered a keynote at the 2nd International Conference on Learning Innovation. [Read more.](#)



**Prof Looi Chee Kit Delivers
Keynote Address at the 11th
International Cognitive Load
Theory Conference**

Prof Looi Chee Kit gave a keynote address at the 11th International Cognitive Load Theory Conference held during 4 to 6 September 2018 in Beijing, China. [Read](#)

[more.](#)



**Dr Pamela Onishi and Dr Imelda
Caleon Publish Paper in *Journal
of Music Education Research***

Dr Pamela Onishi and Dr Imelda Caleon published a paper titled "Measuring Critical Musicality" in *Music Education Research*.

[Read more.](#)



**Dr Chua Boon Liang Delivers an
Invited Keynote on Enhancing
Learning Experiences with
Mathematical Justification**

Dr Chua Boon Liang was invited by Academy of Singapore Teachers to give a keynote address at the Mathematics Learning Day 2018 on 30 July. [Read more.](#)

**Dr Clarence Green and Dr James
Lambert Publish in the *Journal of
English for Academic Purposes***

Dr Clarence Green and Dr James Lambert published a paper "Advancing disciplinary literacy through English for academic purposes: Discipline-specific wordlists, collocations and word families for eight secondary subjects". [Read more.](#)



Dr Hairon Salleh Gives a Keynote at International Seminar on Language, Education and Culture Conference

Dr Hairon Salleh gave a keynote at the International Seminar on Language, Education and Culture Conference 2018 at the University of Malang, Indonesia. [Read more.](#)



Dr Imelda Caleon Presents at International Education Conference

Dr Imelda Caleon gave a talk at the International Education Conference held on 25 and 26 July 2018 in Singapore. [Read more.](#)



Dr Ng Ee Lynn Participates in Invited Keynote Symposium and Poster Presentation

Dr Ng Ee Lynn participated in an invited Keynote Symposium at the 2nd Henry David Hochstadt Early Childhood Symposium. [Read more.](#)



Dr Wong Hwei Ming Presents at International Conference on Education and Learning in Japan

Dr Wong Hwei Ming presented at the International Conference on Education and Learning 2018 held at Waseda University of Tokyo, Japan. [Read more.](#)



**Paper on Makerspaces Published
in Journal: Negotiating Tensions
between Instruction and
Construction**

Dr Michael Tan published a paper in the *Journal of Science Education and Technology*. [Read more.](#)



**Dr Azilawati Jamaludin Speaks at
Institute of Adult Learning**

Dr Azilawati Jamaludin was invited by the Institute of Adult Learning to speak at the InnovLogue on "The Art and Science of Game-based Learning" on 21 September 2018. [Read more.](#)



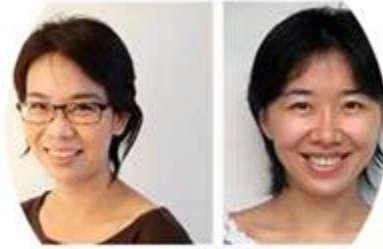
Dr Phillip Towndrow Gives Introduction to Digital Storytelling Creation

Dr Phillip Towndrow was invited to give a presentation at a workshop at EduTECH, Singapore on 8 October 2018. [Read more.](#)



Dr Masato Kawabata Shares Results of His Physical Education Research

Dr Kawabata shared some preliminary results of a school-based intervention programme on promoting moderate to vigorous physical activity. [Read more.](#)



**Dr Loh Chin Ee and Dr Sun Baoqi
Publish in the *Journal of
Adolescent & Adult Literacy***

Dr Loh Chin Ee and Dr Sun Baoqi published a feature article titled "'I'd Still Prefer to Read the Hard Copy": Adolescents' Print and Digital Reading Habits". [Read more.](#)

Publications



[SingTeach September 2018 –
Celebrating our Educator](#)



[Asia Pacific Journal of Education, Vol.
38, Issue 3, 2018 – Broadening and](#)

[Deepening the Dialogue About "Low Achievers"](#)



[Learning: Research and Practice, Vol. 4, Issue 2, 2018 – Challenging Learning Conventions](#)



[Pedagogies: An International Journal, Vol. 13, Issue 4, 2018](#)



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An Institute of



3-year study to focus on needy kids and low-income families

Date

Thursday, 06 December 2018

Citation: Teng, A. (2018, December 6). 3-year study to focus on needy kids and low-income families. The Straits Times, B1.

Citation: National Institute of Education (Singapore). (2018, December 6). *3-year study to focus on needy kids and low-income families*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/3-year-study-to-focus-on-needy-kids-and-low-income-families>

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Promoting Student Well-being: Motivation, Engagement and Resilience

Date

Friday, 14 September 2018

The Office of Education Research (OER), in collaboration with the Academy of Singapore Teachers (AST), organised a seminar on student well-being on 10 September 2018.



A large audience turnout

During the seminar, NIE faculty gave presentations on how student well-being can be supported through enhanced motivation, improved engagement and the embrace of positive values and traits, such as resilience. The seminar attracted a large turnout of over 350 attendees comprising teachers, school leaders as well as policymakers.



A/P Caroline Koh giving the welcome note

In her opening address, A/P Caroline Koh, Head of NIE's Psychological Studies Academic Group (PS AG), encouraged educators get students to think about how they can promote their own well-being and share their ideas on what can be done to enable students to flourish.



A/P Chong Wan Har

The first speaker, A/P Chong Wan Har (Associate Professor, PS AG), shared on how students' self-efficacy and teacher support contribute to student engagement and impact their learning and achievement outcomes.



Dr Imelda Caleon

Dr Imelda Caleon (Research Scientist, Centre for Research in Pedagogy and Practice, OER) then presented the findings of her 3-year research study that investigated the factors that facilitate the development of academic resilience.



A/P Arief Liem

A/P Arief Liem (Associate Professor, PS AG) subsequently spoke about the impact of co-curricular activity (CCA) participation on students' academic-related (e.g., educational aspirations, academic resilience) and non-academic-related (e.g., teamwork, leadership skills) outcomes.



Dr Ailsa Goh

Dr Ailsa Goh (Lecturer, Early Childhood and Special Needs Education Academic Group) later shared on how the use of positive teacher language (PTL) can create a conducive learning environment and improve teacher-student relationships. She also gave examples on the three types of PTL, a summary of which can be found [here](#).



Dr Kit Phey Ling

Dr Kit Phey Ling (Lecturer, PS AG) presented on primary school children's experiences with online counselling and offered advice on how teachers can make use of online portals to reach out to emotionally distressed children.



Dr Fannie Khng

Dr Fannie Khng (Research Scientist, Centre for Research in Child Development, OER) spoke about the benefits of deep breathing and mindfulness-based practices in helping students to regulate their anxiety levels as well as improve their attentional focus.



Dr Chua Bee Leng

Finally, Dr Chua Bee Leng (Associate Dean, Professional Practice, Office of Teacher Education and Senior Lecturer, PS AG) shared on an instrument that teachers can use to understand students' values and dispositions.



Panel discussion

The seminar concluded with a panel discussion moderated by A/P Koh, with A/P Chong, Dr Caleon, A/P Liem, Dr Goh, Dr Kit, Dr Khng and Dr Chua on the panel.





Panelists and audience engaging in discussion

The panel addressed questions posed by the audience regarding their presentations. Some of the topics discussed include *pressure on students to self-regulate, impact of CCA participation on low achieving students, socio-emotional learning for junior college students and role of PTL in coaching and mentoring.*



Group photo

Citation: National Institute of Education (Singapore). (2018, September 14). *Promoting student well-being: Motivation, engagement and resilience.* <https://www.nie.edu.sg/about-us/news-events/news/news-detail/promoting-student-well-being-motivation-engagement-and-resilience>

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Education in the City – “Is it Real? How to Get Ahead of Fake News”

Date

Thursday, 27 September 2018

The Office of Education Research, together with the National Library Board, held the fourth instalment of *Education in the City* on the topic of “Is it Real? How to Get Ahead of Fake News” on 18 September 2018.



The fourth instalment of Education in the City attracted a large audience

The speakers discussed how social media has contributed to the rise of fake news and the factors conducive to the creation of them; as well as practical takeaways in order to call out fake news items. The session attracted a full subscription of 150 participants.



Associate Professor Csilla Weninger at the National Institute of Education

The first speaker Dr Csilla Weninger, Associate Professor at the English Language & Literature Academic Group at the National Institute of Education, shared about the economic and ideological reasons for the creation of fake news and the disposition and skills that readers need to practise in order to recognize “news” that are untrue.



Ms Diane Leow, Digital Journalist at Channel News Asia

The second speaker Ms Diane Leow, Digital Journalist at Channel News Asia, offered practical tips and insights on how to check on the untruthful reports and the resources people can turn to for suspected falsehood on circulation in social media.



Q&A session with examples of fake news

The session concluded with active audience participation with a Q&A session moderated by Mr Mervin Ang, Executive of Engagement at the National Library Board. The ensuing discussion centered on the nature of fake news and a few examples of fake news currently circulating on social media. The session also recapped the actions one could take to counter them.



Active participation from the audience during the Q&A session.

Citation: National Institute of Education (Singapore). (2018, September 27). *Education in the city - "Is it real? How to get ahead of fake news"*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/promoting-student-well-being-motivation-engagement-and-resilience>

Action Research Workshop at Rosyth School

Date

Thursday, 03 October 2019

Since 2018, Research Scientist Dr Lee Shu Shing from the Office of Education Research (OER) has been conducting Action Research (AR) workshops for teachers at Rosyth School.



Dr Lee addressing teachers at her closing workshop

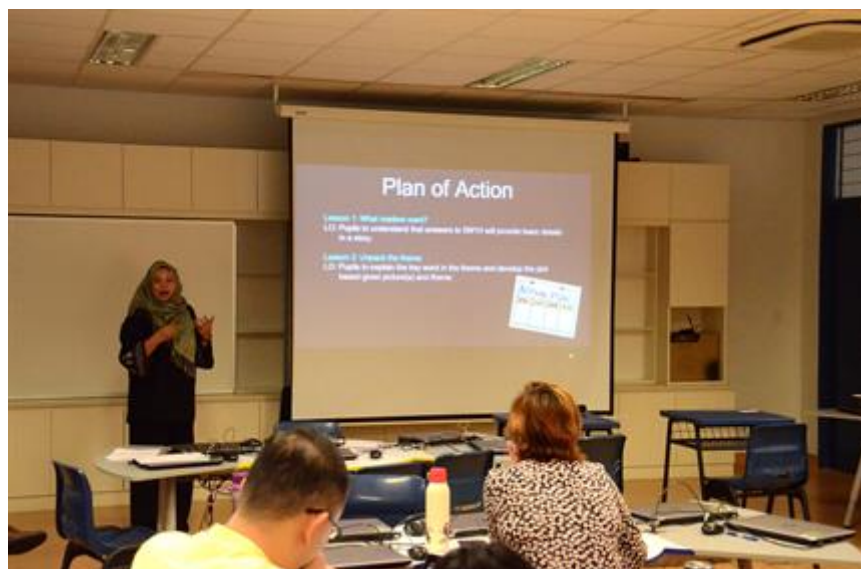
These workshops were conducted under a professional learning course from NIE's Office of Graduate Studies and Professional Learning, titled "Research for Educators (R4E) 201: Action Research Skills in General".

The workshops aim to equip teachers with the knowledge and skills to engage in research so that they can identify and address students' needs, improve learning outcomes as well as refine their evidence-informed practices.

On 25 September 2019, Dr Lee celebrated teachers' AR efforts for 2019 with a closing workshop. During the session, teachers from the school's English, Chinese and Mathematics departments presented on how they have used AR to develop interventions aimed at addressing students' learning needs.



A Chinese language teacher presenting on her team's AR project



An English language teacher presenting on her team's AR project



A mathematics teacher presenting on his team's AR project

The following are examples of interventions developed by the teachers:

- A pre-writing package to expand students' vocabulary and help them generate ideas for English compositions
- Introducing marking symbols to students to help them identify and correct their own mistakes in Chinese compositions
- Explicit teaching of vocabulary and phrases used in Chinese textbooks to help students write compositions
- Having differentiated tasks to engage students in the learning of Mathematics
- Using differentiated instruction to improve students' mathematical problem-solving skills

Teachers who participated in this series of workshops generally found that AR has helped them become reflective practitioners who are better able to identify and address the needs of their students.



From left to right: Ms Ruth Chen, Mrs Julia Ng and Mrs Shannen Koh

"Engaging in AR is also an avenue for teachers to refine our skills and knowledge so that we can enhance our practices and enrich our students' learning," shares Mathematics teacher Mrs Shannen Koh.

Additionally, AR provides opportunities for like-minded teachers to collaborate, tap on one another's expertise and brainstorm solutions together. "Coming together allows us to share our experiences as well as reflect on and learn from each other's teaching strategies so that we are better equipped to devise strategies that address our students' learning needs," adds Chinese language teacher Ms Ruth Chen.

Regardless of the outcomes of the interventions, students generally benefit when teachers try out new strategies in the classroom. "Even if an intervention does not result in significant gains (e.g., better test scores), it can still stretch students' thinking and lead to better classroom engagement, which ultimately still impacts learning positively," explains English language teacher Mrs Julia Ng.

Ultimately, Dr Lee hopes that teachers in Rosyth School will continue to use AR as a tool in their professional learning communities to address classroom issues, inquire, and reflect about their practices in evidence-informed ways.



Dr Lee with teachers who participated in her AR workshops

Citation: National Institute of Education (Singapore). (2019, October 3). *Action research workshop at Rosyth School*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/action-research-workshop-at-roseyth-school>

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NIE Staff Development Day 2018: A Future-ready NIE

Date

Tuesday, 09 October 2018

NIE held its annual Staff Development Day (SDD) on 1 October 2018. The theme of this year's SDD is *A Future-ready NIE*.



Audience listening to Prof Christine Goh



Prof Christine Goh giving her opening remarks

The event began with Director of NIE, Prof Christine Goh's address to the staff community, where she highlighted the importance of NIE faculty, research and Management and Service Officers in the institution's strategic vision of a 'Future-ready NIE'. She also encouraged staff to take up learning opportunities available to them and participate in discussions about the future of teaching, learning and research in NIE.

SDD activities commenced after Prof Goh's address, with concurrent sessions themed on leadership, research as well as teaching and learning. The concurrent sessions' titles and speakers are as follows:

Session 1: Inspiring Learning, Transforming Teaching, Advancing Research

Ready for the Future? by Dr Low Guat Tin



Dr Low Guat Tin speaking at session 1

Session 2: Inspiring Learning, Transforming Teaching [moderated by Dr Tay Hui Yong (Curriculum, Teaching and Learning Academic Group)]

Flipped Learning in the Chemistry Lab by A/P Yan Yaw Kai (Assoc Dean, Academic and Faculty Affairs)

Virtual & Augmented Reality Technology Enhanced Learning by A/P Cai Yiyu (School of Mechanical & Aerospace Engineering, NTU), Asst/P Chen Zhong (Natural Sciences and Science Education Academic Group (NSSE AG)) and Dr Teo Yong Chua (NSSE AG)



Dr Tay Hui Yong introducing session 2



A/P Yan Yaw Kai speaking at session 2



A/P Cai Yiyu speaking at session 2



Asst/P Chen Zhong speaking at session 2

Session 3: Advancing Research [moderated by Dr Dennis Kwek (Assoc Dean, Strategic Engagement, OER)]

Ethical Research: Beyond the IRB by A/P Rita Silver (NIE Research Integrity Officer and Assoc Dean, Research Design and Integrity, OER)

The Future of Research by Dr Adrian Kuah, Lee Kuan Yew School of Public Policy, NUS



A/P Rita Silver and Dr Adrian Kuah at session 3

The day concluded with refreshments served from Toast Box and a traditional ice cream cart, which staff enjoyed very much.



Refreshments from Toast Box and a traditional ice cream cart were served after the concurrent sessions



NIE staff enjoying refreshments

For more photos from NIE SDD 2018:



Office of Education Research - NIE
about 3 years ago



A future-ready NIE;

For any feedback pertaining to SDD, please go to:
<https://tinyurl.com/sdd2018-feedback> — at National Institute of Education (NIE)



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Comment

Share

Citation: National Institute of Education (Singapore). (2018, October 9). NIE Staff Development Day 2018: A future-ready NIE. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/nie-staff-development-day-2018-a-future-ready-nie>

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Inaugural Science of Learning Symposium: From Laboratories to Learning

Date

Monday, 12 November 2018

The Office of Education Research (OER), with support from the National Research Foundation (NRF), organised the inaugural Science of Learning (SoL) symposium on Friday, 2 November 2018.



NIE Director Prof Christine Goh giving the welcome address



Prof Christine Goh with guest of honour Prof Ranga Krishnan

SoL is a field that has gained attention in recent years and proponents extoll its potential to impact educational practice and improve learning outcomes.

At this symposium, themed *From Laboratories to Learning*, renowned local and international experts in neuroscience gave presentations on the possible correlations between brain functioning and development and the underlying neural and cognitive mechanisms of learning.



Audience listening to presentations

The symposium attracted a turnout of about 150 attendees, comprising faculty from other local institutes of higher learning, teachers as well as policymakers.



Prof Brian Butterworth giving the first keynote

The event began with a presentation by the first keynote speaker, Prof Brian Butterworth from the Institute of Cognitive Neuroscience, University College London. Prof Butterworth gave a presentation on dyscalculia, a learning disability that causes children to grasp mathematics, its causes and how it is diagnosed. He also shared on the impact of this disability on a learner's future life prospects and the principles that should underpin interventions to help children with dyscalculia.



Prof Daniel Ansari giving his presentation

Prof Butterworth's keynote was followed by a sharing by Prof Daniel Ansari from the University of Western Ontario. In his presentation, Prof Ansari spoke about the role of working memory and parents in contributing to the development of children's mathematical skills. He also shared on the implications of the NRF-funded research program *Optimising pre-schoolers' working memory and numerical processing capabilities* for the identification and remediation of children at risk of developing learning difficulties in mathematics.



Prof Michael Chee giving his presentation

Prof Michael Chee from Duke-NUS Medical School subsequently presented on the impact of long-term sleep deprivation on adolescents' mood, memory and cognitive function. He also shared research on the benefits of naps for sleep-deprived youths and highlighted the importance of ensuring students get adequate sleep to optimise mood, memory and alertness.



Assoc Prof Paul Dux giving the second keynote

The next half of the programme began with a presentation by the second keynote speaker, Assoc Prof Paul Dux from the School of Psychology, University of Queensland. Assoc Prof Dux's presentation focused on the role of cognitive control in shaping one's attention, learning outcomes as well as the ability to multi-task. He also shared on the causes of poor cognitive control and how brain stimulation, together with training, can improve attention, decision-making and the ability to multi-task.



Asst Prof Azilawati Jamaludin giving her presentation

Asst Prof Azilawati Jamaludin, Assistant Dean (Science of Learning) at OER, then presented on neural-informed, game-based interventions to help low-progress learners in mathematics. She also spoke about the characteristics of learners who persistently struggle with mathematics and the importance of tailoring interventions for different low-progress sub-types.



Asst Prof Suzy Styles

Finally, Asst Prof Suzy Styles from the School of Psychology, Nanyang Technological University, gave a presentation on bilingualism and biliteracy in the Singapore context. Asst Prof Styles spoke about patterns of language exposure in Singapore in one's early years and the factors influencing language development. She also shared on the impact of early language exposure on the development of one's aural-language skills as well as second language acquisition.



Panel Discussion



Shamala Raveendaran, Research Associate from OER asking questions



Dr Erik Jahner, Research Scientist from OER asking questions

The symposium concluded with a panel discussion moderated by Prof David Hung, Dean of Education Research at OER, where speakers took questions from the audience on their presentations. Some of the topics discussed include *strategies to sustain the gains from interventions, impact of learning more than one language simultaneously on children, building connections between teachers and neuroscientists and longitudinal studies on brain development and achievement.*

Citation: National Institute of Education (Singapore). (2018, November 12). *Inaugural Science of Learning symposium: From laboratories to learning.* <https://www.nie.edu.sg/about-us/news-events/news/news-detail/inaugural-science-of-learning-symposium-from-laboratories-to-learning>

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This Creature Called STEM - Science, Technology, Engineering and Mathematics – A Symposium

Date

Thursday, 22 November 2018

A provocative “Do we want to educate for the economy, or for the emancipation of human beings?” posed by Dr Michael Tan (Research Scientist, Office of Education Research, NIE) pricked up the ears of a sleepy morning audience at The HEAD Foundation on 1 November 2018.



The provocative counterweights, Dr Michael Tan and Assoc Prof Hallam Stevens

Citing “Engineers of Jihad” and “The Innovation of Slave Ships” as examples, Assoc Prof Hallam Stevens [Associate Director (Academic), Institute of Science and Technology for Humanity, Nanyang Technological University] and Dr Tan positioned themselves as precautionary counterweights to an overemphasis on “Innovation for Innovation’s sake”, and innovations devoid of humanistic values.

Perhaps only on such “neutral ground” at The HEAD Foundation could such discourse ensue, explains Professor Gopinathan Saravanan (Academic Advisor, The HEAD Foundation).



All smiles from the speakers and attendees at The HEAD Foundation

Hence, there came a unified call from speakers for an interdisciplinary approach towards STEM education. This includes the use of an interdisciplinary and common framework to shape STEM education, avoiding silos (i.e., seeing STEM as four distinct disciplines) and a reductionist approach towards the understanding of STEM.



Prof Paul Teng addresses the audience

Instead, a shift from the “me” to the “we” narrative, cultivating civic-mindedness and humanistic habits of mind through STEM, was proposed by Prof Paul Teng (Managing Director, NIE International).

However, once a vision for the future is established, it is only natural that a gap surfaces. One such constituent of the gap is that “inter”, “trans” and “multi” disciplinary approaches to academic pursuits in Institutes of Higher Learning equate to “career suicide”, as observed by Dr Adrian Kuah (Director, Futures Office, Office of the President, National University of Singapore).



Dr Adrian Kuah cautions against the reductionist approach to understanding STEM education

As if to substantiate Dr Kuah’s point, Assoc Prof Tan Aik Ling [Deputy Head (Teaching and Curriculum Matters), Natural Sciences and Science Education (NSSE), NIE] commented that many academics are reluctant to sacrifice vertical (within discipline) learning, while trying to push for horizontal (across discipline) extensions at the same time. Prof Teng also observed that academics need to have sufficient confidence and mastery in one’s own discipline, before having the courage to venture out.

Other deterrents could be Singapore’s accomplishments in international benchmarking indicators such as the PISA and TIMSS.

This being said, Assoc Prof Teo Tang Wee (NSSE, NIE) noted that there is certainly a shift towards a more holistic approach in STEM education, and that her research team has developed a survey instrument to examine students’ attributes towards STEM.

Efforts by the Singapore Science Centre like the establishment of the Centre for Research and Applied Learning in Science and the Drone Odyssey Programme, are also evident of the landscape’s shift towards a more authentic, integrated and joyful learning of STEM, explained Assoc Prof Lim Tit Meng (Chief Executive Officer, Science Centre Singapore).

Citation: National Institute of Education (Singapore). (2018, November 22). *This creature called STEM - Science, Technology, Engineering and Mathematics – A symposium*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/this-creature-called-stem---science-technology-engineering-and-mathematics-a-symposium>

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OER hosts Professor Michael Schratz

Date

Thursday, 27 September 2018

The Office of Education Research (OER) hosted Prof Michael Schratz from the University of Innsbruck, Austria, from 10 to 12 September 2018.



Prof Schratz speaking at the seminar on leadership development

As part of his visit, Prof Schratz spoke at a seminar titled *Leading Towards the Emerging Future in a Rapidly Changing World: Leadership Development as Transformative Journey*.



Prof Schratz giving his presentation

During this talk, Prof Schratz emphasized the need for leaders to reflect on past experiences and embrace current changes with a fresh perspective in today's age of disruption and shared on the challenges that the Austrian school leaders have faced. A total of 40 education researchers and school leaders attended the seminar.

The ideas that were raised during this seminar were later discussed at a book symposium on *Principals and Principles: The Making of School Leaders in Singapore* held in the afternoon, where Prof Schratz served as discussant.



Assoc Prof Jude Chua giving the opening remarks to the book symposium

The author of the book, Senior Teaching Fellow Dr Zoe Boon from NIE's Policy and Leadership Studies Academic Group (PLS AG), gave a presentation discussing the ideas from her book during the symposium, which was led by Assoc Prof Jude Chua (Head, PLS AG, NIE). Together with Prof Schratz, PLS AG faculty Assoc Prof Ng Pak Tee served as the other discussant.



Prof Schratz speaking at the book symposium



From left to right: Assoc Prof Jude Chua, Prof Schratz, Dr Zoe Boon, Assoc Prof Ng Pak Tee

Citation: National Institute of Education (Singapore). (2018, September 27). *OER hosts Professor Michael Schratz*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/oer-hosts-professor-michael-schatz>

OER Hosts Adam Lefstein, Donald Peurach and Joshua Glazer

Date

Wednesday, 17 October 2018

The Office of Education Research (OER) hosted A/P Adam Lefstein from Ben-Gurion University of the Negev, A/P Donald Peurach from the University of Michigan School of Education, and A/P Joshua Glazer from The George Washington University from 1 to 5 October 2018.

The research expertise of the three professors lie in school improvement, educational policy, teacher learning and professional development.



A member of the audience interacting with the speaker

During their visit, the three professors spoke at a symposium titled *Continuous Improvement in Schools* on 3 October 2018. The symposium attracted a turnout of over 50 attendees comprising NIE faculty and policymakers from Singapore's Ministry of Education.



A/P Don Peurach giving his presentation

A/P Peurach, who was first to present, spoke about the historical and contemporary approaches to large-scale educational innovation and improvement in the United States. He also shared on the role of learning networks in driving improvements in instructional practice and student learning outcomes.



A/P Glazer giving his presentation

A/P Glazer then presented on what causes the gap between educational research and policy and practice and the emergence of research-practice partnerships (RPPs) in the United States to bridge this disconnect. He also spoke about the conditions that enable RPPs to promote educational improvement and added that research that facilitates learning and improvement is often tailored to a policy agenda that aims to solve a specific problem.



A/P Lefstein giving his presentation

Finally, A/P Lefstein shared on professional development for teachers and the types of learning opportunities available to them. In his talk, A/P Lefstein highlighted that teacher learning can take place even as teachers engaged in practice and need not be restricted to a professional development setting.

He also proposed shifting the focus of teacher learning from one that privileges formal learning activities (e.g., professional development workshops, teacher professional learning communities) to a broader perspective that also includes incidental learning on the job.



Group photo

Citation: National Institute of Education (Singapore). (2018, October 17). *OER hosts Adam Lefstein, Donald Peurach and Joshua Glazer*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/oer-hosts-adam-lefstein-donald-peurach-and-joshua-glazer>

OER hosts Associate Professor Paul Dux

Date

Tuesday, 06 November 2018

The Office of Education Research (OER) hosted Associate Professor Paul Dux from the School of Psychology, University of Queensland from 30 October to 2 November 2018. Assoc Prof Dux's research interests lie in neuroscience, attention, cognitive enhancement, theory of mind and science of learning.

During his visit hosted by Dr Azilawati Jamaludin (Assistant Dean, Science of Learning, OER), Assoc Prof Dux spoke at three OER-organised events.



Assoc Prof Dux presenting

The first event was a workshop titled *Brain Stimulation Approaches for Studying Human Cognition*, where Assoc Prof Dux discussed two prominent brain stimulation approaches – transcranial magnetic stimulation (TMS) and transcranial direct current stimulation (tDCS). He spoke about the types of settings where each brain stimulation technique is used, how they can facilitate learning and treat clinical conditions as well as the issues that can be associated with each approach.



Assoc Prof Dux presenting

The second event was a seminar titled *Individuation and Identification in the human brain*, where Assoc Prof Dux presented on the processes in the brain that enable individuals to identify the number of objects and their physical properties. He also shared on how object individuation and identification are processes in the brain linked to numerical processing and discussed the brain regions involved in storing information in our visual short-term memory.

The third event was a seminar titled *Neuroscience, Psychology and Education: Opportunities and Challenges*, where Assoc Prof Dux spoke about the relevance of neuroscience and cognitive psychology research to education. He also shared on the Science of Learning Research Center, a program that brings together educational practitioners as well as researchers in neuroscience, psychology and education and aims to improve learning outcomes for students of all ages.



Assoc Prof Dux at the Science of Learning symposium

In addition to the three events, Assoc Prof Dux was also a keynote speaker at the inaugural Science of Learning symposium.

Citation: National Institute of Education (Singapore). (2018, November 6). *OER hosts Associate Professor Paul Dux*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/oer-hosts-associate-professor-paul-dux>

OER Hosts Dr Andrew Gibson

Date

Monday, 19 November 2018

The Office of Education Research (OER) hosted Dr Andrew Gibson from the Queensland University of Technology in Australia from 1 – 2 November 2018. This visit was hosted by OER researchers Dr Jennifer Tan (Assistant Dean, Learning Analytics and Knowledge Mobilisation) and Dr Elizabeth Koh (Assistant Dean, Research Support).



Dr Andrew Gibson giving the public lecture

Dr Gibson gave a lecture and a workshop at NIE. The lecture was titled “Designing Trans-epistemic Interaction for Learning with Text Analytics”. He spoke about the different approaches undertaken by an educational researcher as opposed to a computational researcher and encouraged trans-epistemic approaches in achieving pragmatic outcomes relating to classroom learning and instructions.



Dr Andrew Gibson conducting the public workshop

In Dr Gibson’s workshop titled “Collaborative Design of Text Analytics for Learning Using Jupyter Notebooks”, he demonstrated the ways in which the application “Jupyter Notebook” helps with text analytics that delve deeper than the analysis of text semantics. He discussed how educational researchers should not stop at evaluating algorithms and act upon the evaluations to derive actionable consequences.



Member of audience raised questions for discussion

The workshop concluded with a discussion of how the trans-epistemic analysis may be designed in order to achieve the pragmatic outcomes of student learning.



Group photo

Citation: National Institute of Education (Singapore). (2018, November 19). *OER hosts Dr Andrew Gibson*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/oer-hosts-dr-andrew-gibson>

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OER Hosts Dr Joshua Polanin

Date

Wednesday, 12 December 2018

The Office of Education Research (OER) hosted Dr Joshua Polanin from American Institutes for Research from 5 – 9 November 2018. This visit was hosted by OER Associate Dean (Research Design & Integrity) Dr Rita Silver.

Dr Polanin is a Principal Researcher and his research expertise lies in systematic reviews and meta-analyses.



Dr Joshua Polanin giving a talk on Introduction to Systematic Review & Meta-analysis

Dr Polanin gave a talk and a workshop at NIE. The talk was titled “The State of the Field: Meta-Analysis”. He spoke about how meta-analysis has proven useful for policymakers and practitioners because the findings offer answers to ambiguous questions and synthesise large bodies of literature. The improvements of meta-analyses and their impact on current and future meta-analyses were discussed in his talk.



Participants of workshop in discussion

In his two-day workshop titled “What is a systematic review and meta-analysis?”, Dr Polanin gave participants all the tools necessary to conduct a high quality systematic review and meta-analysis. He spoke about the latest techniques and technical tools which often require nuanced and sophisticated applications.



Full subscription to the workshop conducted

The workshop was well-attended by 60 participants comprising various research and faculty staff of NIE.

Citation: National Institute of Education (Singapore). (2018, December 12). *OER hosts Dr Joshua Polanin*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/oer-hosts-dr-joshua-polanin>

OER Hosts Dr Wendy Bokhorst-Heng from Crandall University

Date

Wednesday, 12 December 2018

The Office of Education Research (OER) hosted Dr Wendy Bokhorst-Heng from Crandall University, Canada from 12-16 November 2018. This visit was hosted by OER Associate Dean (Research Design & Integrity) Dr Rita E. Silver.

Dr Bokhorst-Heng is an Associate Professor of Education and her research expertise lies in bilingualism, language ideology, language policy and French immersion education. Dr Bokhorst-Heng gave two seminars and one workshop at NIE. The seminars were entitled “Collaboration in Research: A Focus in Co- Writing” and “Innovation in Research Methods.”



Dr Bokhorst-Heng

Dr Bokhorst-Heng also conducted a workshop titled “Literature Reviews: The Conversation” where she shared with participants the conceptual knowledge as well as the techniques and tips of writing a high quality literature review in a highly interactive and engaging workshop guided by scaffolds to develop best practice of writing literature reviews.



Group photo

The workshop was well-attended almost 30 participants comprising various research staff from NIE.

Citation: National Institute of Education (Singapore). (2018, December 12). *OER hosts Dr Wendy Bokhorst-Heng from Crandall University*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/oer-hosts-dr-wendy-bokhorst-heng-from-crandall-university>

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Dr Tay Lee Yong Addresses Master Teachers on the “Use of Technology in Schools – Looking Backward to go Forward, Is it a Déjà vu?”

Date

Tuesday, 04 September 2018



Dr Tay Lee Yong addressing Master Teachers

Dr Tay Lee Yong was invited to speak to about 100 Principal Master and Master Teachers at the 3rd Master Teachers' Networking Meeting at the Umar Pulavar Tamil Language Centre on 23 August 2018.

Currently seconded to NIE as a teaching fellow at the Office of Education Research, Dr Tay was a former Dean - *Development, Research and Technology* with Beacon Primary School, FutureSchools@SG as well as the recipient of the prestigious President's Award for Teachers in 2015.

In addition to these accolades and experiences, Dr Tay was also engaged based on his rich and diverse experiences as an educator and researcher, as well as his familiarity with both core and non-core subjects.

The Analogy of the Peacock Feather

Focus on the eye of the peacock feather - *the opportunities for tomorrow*.

Preceding Dr Tay's talk, Mrs Chua-Lim Yen Ching, Deputy Director-General of Education at the Ministry of Education, encouraged the teaching community with an analogy of the peacock feather.



Mrs Chua-Lim Yen Ching, Dr Tay and the Peacock Feather

With the assistance of Dr Tay, Mrs Chua demonstrated that a peacock feather can be balanced for a prolonged period of time if one focused on the eye of the peacock feather (see image of Mrs Chua-Lim Yen Ching, Dr Tay and the Peacock Feather) instead of the feather's downward tip.

This analogy translated to how we must always look to the opportunities of tomorrow, and not be weighed down by the problems of today.

Three Types of Barriers

In his talk, Dr Tay explained that there were three types of barriers to ICT use and integration in the educational setting. The barriers are described below:

First order barriers (Ertmer, 1999)	First order barriers are issues pertaining to access to and institutional support for technology. This may include infrastructural and institutional support for the use of the technology.
Second order barriers (Ertmer, 1999)	Second order barriers pertain to teachers' beliefs on how ICT should or could be used in teaching and learning. This may include pedagogical beliefs, technological beliefs and a willingness to change.
Third order barriers (Tsai and Chai, 2012)	Third order barriers refer to the lack of design thinking in teachers. The proposition is that the application of design thinking in ICT use and integration would greatly improve circumstances.

Table 1: First, second and third order barriers (Ertmer 1999; Tsai and Chai, 2012)

Trends in ICT use and Integration

Dr Tay shared a few trends he observed in his years of experience in ICT use and integration:

Looking Backward to go Forward

As there is not always a standard model for ICT innovation, it can sometimes feel to educators during the period of implementation as if they are "groping in the dark". Being cognisant of this helps us develop a more realistic expectation in our progress of ICT implementation.

The Value of Significant but Less Visible Work

For ICT innovation to work, it often requires what Dr Tay described as "significant but less visible work". These pieces of less visible work included professional development for teachers, facilitating mindset shifts in staff, ensuring the availability and reliability of technical support, creating storage space for computing devices and network etc.

Comfort and Technology Usage

Users tend to take on new technology only when the level of comfort is high. As technology is constantly changing, it is inevitable for teachers to feel 'uncomfortable' when using ICT in their lessons.

Dr Tay encouraged the teaching community to continually take a proactive and optimistic approach towards the future of ICT use and integration while recognizing the barriers and trends. The awareness of potential barriers to ICT use and integration helps us take a practical approach towards constraints.



Dr Tay Lee Yong sharing his experiences with about 100 Principal Master Teachers and Master Teacher

Last but not least, Dr Tay highlighted the importance of school leadership in setting expectations towards the use of ICT.

To illustrate his point, Dr Tay shared his experience at Beacon Primary School. The expectation set by school principal Miss Lim Boon Cheng was that technology might fail in the initial instances

and work only in successive trials. This managing of expectations helped the Beacon Primary school community to increase their resilience towards ICT breakdowns, and to embrace the use of ICT despite the breakdowns.

Citation: National Institute of Education (Singapore). (2018, September 4). *Dr Tay Lee Yong addresses Master Teachers on the “Use of technology in schools – Looking backward to go forward, is it a déjà vu?”*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/dr-tay-lee-yong-addresses-master-teachers-on-the-use-of-technology-in-schools-looking-backward-to-go-forward-is-it-a-d%C3%A9j%C3%A0-vu>

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Seamless Science Learning Receives Coverage in MOE's "Contact" Magazine

Date

Thursday, 13 September 2018

The graphic is divided into two main sections. The left section has a white background with blue text. The right section has a dark blue background with white text.

Streamlining the Designs of Seamless Science Learning for Wider Diffusion

Project Number
AFD 05/16 WLH

Project Duration
January 2017 - July 2019

Status
In-Progress

Abstract
Seamless learning refers to a continuous, holistic learning process across learning contexts, such as formal and informal learning settings, individual and collaborative learning, and learning in physical and digital realms, preferably with 1:1 (one-mobile-device-per-student), 24x7 support. The NIE-initiated research in and practice of seamless science learning have yielded impressive results over the past seven years. The learning model has been diffused to 10 schools after successful proof-of-concept in Nan Chiau Primary School, with data showing that the students enrolled in seamless science lessons performed

Research Investigators

Principal Investigator:
Wong Lung Hsiang

Co-principal Investigator:
Looi Chee Kit

Collaborator:
Seow Sen Kee, Peter
Goh Su Fen (AST, MOE)
Yeo Ai Choo, Jennifer

Seamless Science Learning concept has recently received coverage on "Contact: The Teachers' Digest", Issue 30, page 8, published by the Ministry of Education.

Entitled "Lesson from NIE Research: Creative pedagogies in our education landscape" the write-up traces the research and pedagogical development trajectory of seamless science learning. It includes the description of a seamless lesson to exemplify how the formal science curriculum can be extended beyond the classroom to tap on authentic and social resources in advancing and deepening the learning of science concepts.

The issue can be viewed here: [Contact](#)

The Seamless Science Learning OER projects are led by Professor Looi Chee Kit and Dr Wong Lung Hsiang, Office of Education Research are listed below:

Streamlining the Designs of Seamless Science Learning for Wider Diffusion

LI-nterChange: Towards a Contextual- and Social-mediated Seamless Language Learning Practice with Multiple Learning Pathways

Towards a Seamless Language Learning Framework: Enculturating Learners to Practices of Bridging Language Learning Spaces Mediated by an Integrated Technology-transformed Learning Environment

MyCLOUD - A Seamless Chinese Language Learning Environment Leveraging on Ubiquitous Technology and the Construction of Mental Lexicon

A Mobile Assisted Language Learning Environment to Improve Primary School Pupils' Attitudes and Competencies in Chinese Proverb Learning and Writing

Citation: National Institute of Education (Singapore). (2018, September 13). *Seamless Science Learning receives coverage in MOE's "Contact" magazine*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/seamless-science-learning-receives-coverage-in-moe-s-contact-magazine>

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Dr Wong Lung Hsiang Delivers Keynote at International Conference on Learning Innovation

Date

Thursday, 13 September 2018

Dr Wong Lung Hsiang, Senior Research Scientist at the Office of Education Research, delivered a keynote at the 2nd International Conference on Learning Innovation. The academic conference was held at the Atria Hotel in the East Javanese city of Malang, Indonesia from 8-9 August, 2018.

In his speech entitled “Mobile Seamless Learning: What is the Research and Practical Niche?”, Dr Wong introduced the salient characteristics of seamless learning, traced the evolutions of its perspectives from “technology-enabled” and “pedagogy-focused” to “enculturating”, and shared the mobile-assisted seamless learning research conducted by his team. His talk generated enthusiastic discussion among faculty members in in-depth exchanges and dialogues.



Dr Wong delivered his keynote speech at the International Conference on Learning Innovation 2018

In another international conference held in Singapore, Dr Wong has delivered a keynote at the 5th International Mobile Learning Festival in Singapore on 7 June 2018.

Citation: National Institute of Education (Singapore). (2018, September 13). *Dr Wong Lung Hsiang delivers keynote at International Conference on Learning Innovation*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/dr-wong-lung-hsiang-delivers-keynote-and-international-conference-on-learning-innovation>

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Prof Looi Chee Kit Delivers Keynote Address at the 11th International Cognitive Load Theory Conference

Date

Monday, 17 September 2018

Professor Looi Chee Kit gave a keynote address at the 11th International Cognitive Load Theory Conference held during 4 – 6 September 2018 in Beijing, China. In his keynote entitled “When Mobile Learning and Seamless Learning meet Cognitive Load Theory”, he presented an outsider’s view of the theory and detailed the aspects and processes of mobile learning as well as the explanatory mechanisms of Cognitive Load Theory (CLT). He also postulated the research areas that can bring together the understanding of CLT and the design of mobile learning as well as seamless learning. The conference was attended by researchers renowned in the field of CLT.



Professor Looi Chee Kit

Citation: National Institute of Education (Singapore). (2018, September 17). *Prof Looi Chee Kit delivers keynote address at the 11th International Cognitive Load Theory Conference*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/prof-looi-chee-kit-delivers-keynote-address-at-the-11th-international-cognitive-load-theory-conference>

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Dr Pamela Onishi and Dr Imelda Caleon Publish Paper in Journal of Music Education Research

Date

Wednesday, 10 October 2018



Dr Pamela Onishi



Dr Imelda Caleon

Dr Pamela Onishi and Dr Imelda Caleon, Research Scientists at Office of Education Research (OER), published a paper titled "Measuring Critical Musicality" in Music Education Research.

The study focused on the development and psychometric evaluation of the 16-item Critical Musicality Scale. It was found that the reliability of each factor of critical musicality was satisfactory. As additional evidence for the construct validity of the scale, it was found that all of the dimensions of critical musicality had significant positive correlations with the students' behavioural and emotional engagement in music learning activities.

These results were drawn from an OER-funded project titled "Community Music Education: Towards the Development of New Pedagogies for the 21st Century".

Citation: National Institute of Education (Singapore). (2018, October 10). *Dr Pamela Onishi and Dr Imelda Caleon publish paper in Journal of Music Education Research*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/dr-pamela-onishi-and-dr-imelda-caleon-publish-paper-in-journal-of-music-education-research>

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Dr Clarence Green and Dr James Lambert Publish in the Journal of English for Academic Purposes

Date

Monday, 03 September 2018



Dr Clarence Green

Dr James Lambert

Dr Clarence Green and Dr James Lambert from NIE's English Language and Literature Academic Group published a paper titled "Advancing disciplinary literacy through English for academic purposes: Discipline-specific wordlists, collocations and word families for eight secondary subjects" in the Journal of English for Academic Purposes. The paper is derived from OER Project "Improving Disciplinary Literacy by Developing Vocabulary and Grammatical Profiles".

The paper focused on how pre-tertiary level students might be assisted to develop their disciplinary literacy and how academic English varies across disciplines.

While English for Academic Purposes (EAP) research has developed advanced methods for producing corpus-informed vocabulary resources, these have yet to be fully leveraged to promote disciplinary literacy within the secondary school context. The current research contributes a series of discipline-specific wordlists for secondary school education, the Secondary School Vocabulary Lists (SVL), covering eight core subjects: Biology, Chemistry, Economics, English, Geology, History, Mathematics, and Physics.

The SVL thus provides secondary education teachers with an unprecedented set of resources covering key vocabulary for the eight core disciplines informed by innovative EAP corpus methods.

Citation: National Institute of Education (Singapore). (2018, September 3). *Dr Clarence Green and Dr James Lambert publish in the Journal of English for Academic Purposes*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/dr-clarence-green-and-dr-james-lambert-publish-in-the-journal-of-english-for-academic-purposes>

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Dr Chua Boon Liang Delivers an Invited Keynote on Enhancing Learning Experiences with Mathematical Justification

Date

Friday, 12 October 2018



Dr Chua giving the keynote address

Dr Chua Boon Liang, Assistant Professor at the Mathematics & Mathematics Education Academic Group of NIE, was invited by Academy of Singapore Teachers to give a keynote address at the Mathematics Learning Day 2018 on 30 July 2018. The title of his keynote address was “Enhancing Learning Experiences with Mathematical Justification”. The session attracted a full subscription by both primary and secondary school mathematics teachers, subject heads and heads of department for Mathematics.



The event attracted a full subscription

Dr Chua spoke about how mathematical reasoning and justification processes tend to be rather challenging for students. If the teaching of these skills were not carefully managed, these processes may be hard to grasp. The consistent use of justification tasks can enhance students’ reasoning competency and learning experiences, thus affording them confidence in mathematics. He focused on how to use questions from past-years PSLE, “O” level and “N” Level examinations to develop students’ reasoning and justifying skills as well as conceptual fluency.

The keynote address arose from an OER project titled “Justification in Mathematics”.

Citation: National Institute of Education (Singapore). (2018, October 12). *Dr Chua Boon Liang delivers an invited keynote on enhancing learning experiences with mathematical justification*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/dr-chua-boon-liang-delivers-an-invited-keynote-on-enhancing-learning-experiences-with-mathematical-justification>

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Dr Hairon Salleh Gives a Keynote at International Seminar on Language, Education and Culture Conference

Date

Wednesday, 17 October 2018



Dr Hairon Salleh

Dr Hairon Salleh, Assistant Dean (Higher Degrees by Coursework) with the Office of Graduate Studies & Professional Learning, and Associate Professor with the Policy, Curriculum and Leadership Academic Group, gave a keynote address at the International Seminar on Language, Education and Culture Conference 2018 at the University of Malang, Indonesia from 1 to 2 September 2018.

His keynote address entitled, "Effective School Leaders for Effective Teacher Learning in Communities" covers key research findings pertaining to how professional learning communities can be enacted in ways that successfully impact teaching and learning; and how leaders across different levels of the school organization play a significant role in supporting teacher learning in communities.

The presentation of these key findings were drawn from these OER research projects:

The Impact of Community-Based Teacher Learning on Student Learning Outcomes

Leadership for Collective Learning: An Effective Distributed Perspective

Citation: National Institute of Education (Singapore). (2018, October 17). *Dr Hairon Salleh gives a keynote at International Seminar on Language, Education and Culture Conference*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/dr-hairon-salleh-gives-a-keynote-at-international-seminar-on-language-education-and-culture-conference>

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Dr Imelda Caleon Presents at International Education Conference

Date

Friday, 19 October 2018



Dr Imelda Caleon

Dr Imelda Caleon, Research Scientist at the Office of Education Research (OER), gave a talk entitled “Bouncing Back from Negativity: Cultivating Resilience and Wellbeing in Singapore Schools” at the International Education Conference held on 25 and 26 July 2018 in Singapore.

Her talk elucidated the centrality of resilience and wellbeing in the field of positive psychology and its emerging applied sub-field on positive education, and traced the history of the work in this area. She also presented on the key factors, tools and conditions that cultivate them in school settings. The first presentation highlighted key findings drawn from a three-wave longitudinal study on academic resilience involving a large group of lower achieving students. The second presentation detailed the implementation and evaluation of intervention study aimed at cultivating school resilience and wellbeing through gratitude activities. Drawing from robust exploratory and experimental data obtained through surveys and interviews, insights and recommendations were presented to guide educators, parents, policy makers and researchers to foster resilience and positive emotions, dispositions and experiences in schools.

Dr Caleon’s talk is based on the following projects:

Nurturing Positivity: A Positive Psychology Intervention to Enhance Well-Being, Engagement, and Achievement among At-Risk Students

Turning Achievement Around: Predictors of Academic Resilience of Academically At-Risk Students in Singapore

Citation: National Institute of Education (Singapore). (2018, October 19). *Dr Imelda Caleon presents at International Education Conference*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/dr-hairon-salleh-gives-a-keynote-at-international-seminar-on-language-education-and-culture-conference>

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Dr Ng Ee Lynn Participates in Invited Keynote Symposium and Poster Presentation

Date

Friday, 19 October 2018



Dr Ng Ee Lynn

Dr Ng Ee Lynn, Research Scientist at the Office of Education Research (OER), participated in an invited Keynote Symposium at the 2nd Henry David Hochstadt Early Childhood Symposium. This symposium was co-organized by NIE's Early Childhood and Special Education Academic Group and the Association for Early Childhood Educators Singapore on 25 August 2018. Her presentation was entitled "Transitioning from preschool to primary school: A comparison of children in "shared" vs. "non-shared" environments". In her talk, she discussed transitioning from preschool to primary school as it brings a unique set of challenges to children.

One of the main challenges is learning to adapt to a formal and structured learning environment; and to a new physical setting and new routines. Drawing on data from the Singapore Kindergarten Impact Project, the research team found that transitioning to primary school within a shared environment carries some benefits for children's developmental outcomes at Primary 1. However, more research is needed to better understand how transitions should be managed to ensure that it is a supportive and stress-free experience for children. It was recommended that future research must look into a collaborative effort involving the perspective of various stakeholders (e.g., children, parents, teachers, and school leaders).

In addition, Dr Ng participated at the 25th Biennial Meeting of the International Society for the Study of Behavioural Development from 15 to 19 July 2018 at Gold Coast, Australia. She made a poster presentation titled "Multiple pathways to acquiring early math skills: At-risk children benefit from better self-regulation and learning-related social skills" that discussed the two facets of self-regulation – executive function (EF) and effortful control (EC) which contribute to children's academic achievement.

As it has been studied that exposure to poverty is linked to delays in EF and EC development, a question of concern is the extent to which EF and EC predict growth in academic skills for children from low- vs. high-income families. Because few studies have explored the roles of EF and EC concurrently, Dr Ng and her research team addressed this gap by examining, in particular, the growth in math knowledge from the first (K1) to the second year of kindergarten (K2). They also examined whether learning-related behaviors (e.g., concentration, persistence) mediate the links from EF and EC to math knowledge.

Drawing on data from the Singapore Kindergarten Impact Project, the team found that self-regulation contributes to math knowledge via different pathways for children from low- vs. high-income families. Children from low-income families with better EF and EC, as well as better learning-related behaviors, attained higher math knowledge at K2. In contrast, children from high-income families benefit mainly from better EF skills. In relation to the ongoing debate on optimal strategies for improving disadvantaged children's math outcomes, a multi-pronged strategy targeting their self-regulation skills and learning-related behaviors may be a promising approach.

Citation: National Institute of Education (Singapore). (2018, October 19). *Dr Ng Ee Lynn participates in Invited Keynote symposium and poster presentation*. <https://nie.edu.sg/about-us/news-events/news/news-detail/dr-ng-ee-lynn-participates-in-invited-keynote-symposium-and-poster-presentation>

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Dr Wong Hwei Ming Presents at International Conference on Education and Learning in Japan

Date

Friday, 26 October 2018



Dr Wong Hwei Ming

Dr Wong Hwei Ming, Research Scientist at the Office of Education Research, presented at the International Conference on Education and Learning 2018 held from 22 – 24 August 2018 at Waseda University of Tokyo, Japan.

Her presentation was titled “Professional Learning Communities: A Tale of Two Schools in Singapore” which was based on a project which she is the Co-Principal Investigator with Dr Tan Liang See, who is the Principal Investigator.



Dr Wong at the International Conference on Education and Learning

The presentation focused on teacher learning through professional learning communities (PLCs). Teachers were made to be seen as passive recipients of reform initiatives rather than active participants of innovation and change. PLCs seek to reverse this trend by shifting ownership of innovation and change back to teachers and giving them the agency and autonomy to decide collectively as a group of professionals to lead educational improvements within their schools. A PLC is a whole-school approach to build a teacher-initiated culture of professional collaboration, thereby fostering a stronger sense of professionalism, commitment and collegiality among school staff (Lee, Tay, & Hong, 2015).

Besides presenting on the research, Dr Wong was also the session chair for her session and also helped to facilitate the session for five other presenters to a room of at least 22 persons which was at full capacity.

Citation: National Institute of Education (Singapore). (2018, October 26). *Dr Wong Hwei Ming presents at International Conference on Education and Learning in Japan*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/dr-wong-hwei-ming-presents-at-international-conference-on-education-and-learning-in-japan>

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Paper on Makerspaces Published in Journal: Negotiating Tensions Between Instruction and Construction

Date

Tuesday, 30 October 2018



Dr Michael Tan

Dr Michael Tan, Research Scientist from the Centre for Research in Pedagogy and Practice at OER, published a paper titled “When Makerspaces Meet School: Negotiating Tensions Between Instruction and Construction” in the *Journal of Science Education and Technology*.

In the paper, which arose from an OER project “Characterising Epistemic Engineering Practices in a School Makerspace”, he reported on a case study of a school which designed a learning organisation around a makerspace built upon a hacker model of learning. While it may appear that less ‘teaching’ is required, the tasks required to effectively remove the supports, and yet achieve learning, are non-trivial indeed.

NIE staff/students can access the journal for free through the Library portal at <https://library.nie.edu.sg>.

Citation: National Institute of Education (Singapore). (2018, October 30). *Paper on makerspaces published in journal: Negotiating tensions between instruction and construction*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/dr-michael-tan-publishes-a-paper-in-journal-of-science-education-and-technology>

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Dr Azilawati Jamaludin Speaks at Institute of Adult Learning

Date

Wednesday, 31 October 2018



Dr Azilawati Jamaludin

Dr Azilawati Jamaludin, Assistant Professor at NIE's Curriculum, Teaching and Learning Academic Group and Assistant Dean (Science of Learning at the Office of Education Research), was invited by the Institute of Adult Learning (IAL) to speak at the InnovLogue on "The Art and Science of Game-based Learning" on 21 September 2018. The speaker panel included some well-known figures in the gaming industry such as Mr Noah Falstein, who was previously Chief Game Designer at Google.

Her presentation discussed using game play to make learning interesting and engaging. The questions raised were: How can educators capitalise on this trend, effectively and sustainably? And secondly, can a balance be achieved or are they necessarily divergent?

The invited panel discussed the current research, design and industry practices from the field of game-based learning, delving into both the *Art* and *Science* of Game-based Learning.

Citation: National Institute of Education (Singapore). (2018, October 31). *Dr Azilawati Jamaludin speaks at Institute of Adult Learning*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/dr-azilawati-jamaludin-speaks-at-institute-of-adult-learning>

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Dr Phillip Towndrow Gives Introduction to Digital Storytelling Creation

Date

Monday, 19 November 2018

Dr Phillip Towndrow, Senior Research Scientist at the Office of Education Research, NIE, was invited to give a presentation titled “What’s your story? An Introduction to Digital Storytelling Creation” at a workshop at EduTECH, Singapore on 8 October 2018.



Dr Philip Towndrow

Dr Towndrow discussed storytelling in and the use of technologies that allow teachers and students to combine various media into their narratives. Digital technologies are a powerful tool for story creation and production but how exactly can teachers and learners harness this potential in their regular lessons and, most importantly, why? Participants explored communication with and through images and then practised combining these with written and/or spoken words to design meanings along the lines of a particular theme or topic. The session concluded with a discussion of available digital storytelling publishing tools and platforms for participants to explore once they return to their institutions.

On 11 October 2018, Dr Towndrow also presented at a public lecture at the HEAD Foundation, Singapore titled “What’s Your Story? Digital Storytelling as an Expression of Professional Identity”.

At this public lecture, he spoke about how change is, and can be, disturbing and disruptive. As a result, it is becoming increasingly difficult to know what to believe when there are so many competing interpretations of events available. Against this backdrop, he proposed Digital Storytelling as a contemporary platform for taking control, exploring and understanding our lives as well as making a difference to those around us. Stories are everywhere and we all have stories to tell so long as there is a safe, trusting and exploratory learning environment. Using a case study from a student and his teacher in the Singaporean context, he illustrated the educative value of storytelling as a transformational and life-changing event.

Citation: National Institute of Education (Singapore). (2018, November 19). *Dr Phillip Towndrow gives introduction to digital storytelling creation*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/dr-phillip-towndrow-gives-introduction-to-digital-storytelling-creation>

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Dr Masato Kawabata Shares Results of His Physical Education Research

Date

Tuesday, 20 November 2018



Dr Masato Kawabata

Dr Masato Kawabata, Assistant Professor at NIE's Physical Education and Sports Science Academic Group, presented his OER-funded research project titled "Effects of School-based Intervention Programs in Promoting Moderate to Vigorous Physical Activity during Leisure-time" at the 33rd Association for Applied Sport Psychology (AASP) Annual Conference on 4th October 2018.

Dr Kawabata shared some preliminary results of a school-based intervention program on promoting moderate to vigorous physical activity. The conference was held at the Westin Harbour Castle in Toronto, Canada with over 1,100 attendees. It was the second largest conference of AASP.

Citation: National Institute of Education (Singapore). (2018, November 20). *Dr Masato Kawabata shares results of his physical education research*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/dr-masato-kawabata-shares-results-of-his-physical-education-research>

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Dr Loh Chin Ee and Dr Sun Baoqi Publish in the Journal of Adolescent & Adult Literacy

Date

Wednesday, 10 October 2018



Dr Loh Chin Ee



Dr Sun Baoqi

Dr Loh Chin Ee, Assistant Professor at NIE's English Language and Literature Academic Group and Dr Sun Baoqi, Research Scientist at Office of Education Research (OER) published a feature article titled "'I'd Still Prefer to Read the Hard Copy': Adolescents' Print and Digital Reading Habits" in the Journal of Adolescent & Adult Literacy.

Based on an OER-funded project "Building a Reading Culture", Dr Loh and Dr Sun concluded that the approach to reading print and using technology to read should not be framed as an either/or stance. Rather, educators need to understand reading as an activity that can be situated in both physical and online spaces, using both print and digital resources. Hence, it translates to the following proposed actions for educators:

Students still want print, especially younger adolescents. Focus on stocking the classroom and school libraries with attractive and up-to-date fiction and nonfiction print books to support reading motivation and interest.

Students who enjoy reading and those who do not may be differently motivated. Consider using different reading devices to motivate different kinds of readers. Use technology to engage students in social activities around books. Set up Instagram or Twitter accounts to promote books.

Rethink the school library's physical and online ecology of reading as a seamless whole. Consider how to motivate students' reading and support their reading habits through both print and digital technologies.

Citation: National Institute of Education (Singapore). (2018, October 10). *Dr Loh Chin Ee and Dr Sun Baoqi publish in the Journal of Adolescent & Adult Literacy*. <https://www.nie.edu.sg/about-us/news-events/news/news-detail/dr-loh-chin-ee-and-dr-sun-baoqi-publish-in-the-journal-of-adolescent-adult-literacy>

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