08:30-09:00	Registration	Outside Area of D1-LP-02

Keynote Speech 6

09:00-09:40	**Keynote Speech 6** *Quest for world-class teacher education? Global trends in Chinese experiences* Dr. Jun LI	D1-LP-04
09:40-10:00	**Morning Tea Break**	Outside area of D1-LP-08

HKERA Hong Kong School Education Forum 1 論壇 1

10:00-11:30	**香港運算思維教育** 主持人：香港教育大學　　　江紹祥教授 **主題：運算思維教育的設計**　　　　　　**主題：運算思維教育的實踐** 浸信會天虹小學　朱子穎校長　　　　　馬鞍山靈糧小學　陳美娟校長 **主題：運算思維教育在中學的實踐** 樂善堂余近卿中學　劉振鴻校長 **簡介：** 運算思維教育讓學生學習編程、發展邏輯思維及解決問題的能力，目標是培養學生與科技世界建立聯係。運算思維教育在小學和中學階段推行的目的是讓學生持續建立學習和應用運算思維的基礎，透過編程來發展尋找和解決問題的能力。香港學校教育近年積極發展運算思維教育。本研討會將邀請三位傑出校長分享香港學校領導層在中小學校成功策劃和推動運算思維教育的經驗和遠見。本研討會將討論香港中小學發展運算思維教育的現況、小學和中學運算思維教育的可行連繫及學校教育發展運算維教育的未來方向。	D2-LP-05

WERA Invited Symposium 3   D2-LP-10

10:00-11:303	A New Frontier in Educational Assessment of Mathematics Learning: PISA 2012 Public and Restricted Chinese Database	**William SCHMIDT** (Presenter: An Initial Look at Chinese Performance) Michigan State University USA **Xin TAO** (Presenter: The Chinese National Assessment and Participation in PISA) Beijing Normal University China	**Chair:** **Barbara L. SCHNEIDER**, Michigan State University, USA, bschneid@msu.edu; **Discussant:** **Brian HUDSON,** University of Sussex, United Kingdom

This symposium will present research on mathematics learning from a newly emerging Chinese national assessment program. The symposium will provide a brief overview of the China Assessment Program, how it evolved, and its overall scope and current status. Also, the session will consider results from PISA that have never before been released. In particular, the symposium will report on multilevel analyses that examine the opportunity to learn (OTL) and its relationship to socio economic status (SES) and mathematics achievement in China. Based on public (Shanghai, Hong Kong and Macao) and restricted (10 provinces/cities) Chinese data from PISA 2012, the research findings suggests that, in China, school does matter. Compared with other predictors, school level OTL had the largest impact on mathematics achievement. Both the school- and province-level SES showed significant positive relationships to mathematical literacy. Conclusions and suggestions for policy makers and the future research are discussed.

| **HKERA International Conference Paper Presentation** | **10:00-11:30** |

| **Special Education Needs** | **D3-G-09** |

| **3.1A - 1 - 1031** | 有效性與公平性的平衡——香港融合教育的評價與測量 | 普通話 |

| **Author(s)** | 孫正樑，香港教育大學，香港 |

教育評價是現代教育科學研究的三大領域之一。現時香港融合教育的評價測量體制和量表基本和主流教育一致，並會根據平等機會原則為 SEN 學生提供特別安排 。然而，這種方式在有效性和公平性上都存在問題，亦無法解決現階段香港融合教育中測量評價的矛盾。

本文旨在探討香港融合教育評價測量中的問題，主要針對現有香港融合教育在評價測量時所使用的評量量表和遵循的文件指示（包括《特殊教育需要學生校內考試特別安排》、《融合教育運作指南》、《香港小學生特殊學習困難行為量表》等）對其有效性進行分析，依據教育心理學中心理調控理論分析香港融合教育的評價測量環節的特殊設置的公平性，並根據現有的融合教育和教育考試學的相關文獻，尋找有效性和公平性的平衡，從而提出可行的改進方案。

| **Early Childhood Education** | **D3-G-09** |

| **3.1A - 2 - 1075** | 父母早期教育投入对子女未来数学科学成绩的影响机制研究 | 普通話 |

| **Author(s)** | 崔依冉，北京师范大学中国基础教育质量监测协同创新中心，中國
张丹慧，北京师范大学中国基础教育质量监测协同创新中心，中國 |

本研究基于 TIMSS2015 香港数据，深入探讨父母对数学、科学的态度及在子女幼儿时期的教育投入对子女小学四年级数学、科学学业表现的影响机制。通过使用多水平结构方程模型，在控制学生层和学校层相关背景变量的基础上，分析学生的兴趣和自我概念在该模型中的中介效应。数据结果表明，在控制学生性别、移民、SES、及学校水平 SES 后，父母对数学科学的态度能够显著正向预测他们在子女幼儿时期的教育参与，并通过影响学生兴趣和自我概念显著正向影响学生未来的数学、科学学业表现。

| **Early Childhood Education** | **D3-G-09** |

| **3.1A - 3 - 2292** | STEAM 融入幼兒園主題課程之試探研究：以台灣親仁幼兒園為例 | 普通話 |

| **Author(s)** | **Chia-Hui LIN 惠，** KinderLand　Kindergarten，台灣
Wan-Ting LIAO， KinderLand　Kindergarten，台灣
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Su-Hui CHOU， 國立清華大學，台灣
Chih-Hui LIU， KinderLand　Kindergarten，台灣 |

STEAM 為當前教育趨勢，本研究旨在探討 STEAM 融入幼兒園主題課程中之可行性與樣貌。經採質性研究方法蒐集資料，在「木頭變魔術」實例中，教師透過搭建鷹架、經營探究歷程、運用語文心智工具、親師生共構與社區連結五種策略。研究結果發現，1.幼兒發展層面：幼兒有能力於歷程中運用科學、科技、工程、藝術與數學跨領域來進行主題探究；2.教師發展層面：促使教師於其中持續省思並提升教學效能；3.幼兒園發展層面：更加堅定「以幼兒為中心、以生活為內涵」之理念。本研究以幼兒生活經驗結合探究能力，於主題課程中，確實可為幼兒面對未來挑戰做準備。

關鍵字：探究取向主題課程；STEAM 教育；統整性學習；教師鷹架

| **Higher and Teacher Education** | **D2-LP-07** |

| **3.1B - 1 - 2215** | Teacher Professional Development Impact on Student Attitudes on Schooling and Learning | English |

| **Author(s)** | **Amira AL SHABIBI,** The Specialised Centre for Professional Training of Teachers, Oman
Aisha AL MANTHARI, The Specialised Centre for Professional Training of Teachers, Oman
Bahia AL RASHDI, The Specialised Centre for Professional Training of Teachers, Oman |

The ultimate goal of teacher professional development is to improve students' learning skills and learning outcomes. Students can be seen as the end users of teaching and education. Thus, it is of utmost relevance to get information on how students experience the teaching of teachers who have participated in professional development and in-service programmes. In this study the impact of participation in teachers' in-service training is examined in schools in Oman. The sample of the study consists of 6000 students: 3176 students of teachers who had participated in in-service training, and 2824 students of teachers who had not

received respective training. The student questionnaire was designed to provide insight on how the training received by teacher is reflected in student attitudes towards learning and schooling. An independent sample t-test was conducted to determine if there were differences in attitudes towards learning between students of trained teachers and non-trained teachers. The results show statistically significant differences between students' attitudes for the benefits of students of trained teachers.

Keywords: Teaching, teacher professional development, learning outcomes, students' attitudes

Higher and Teacher Education	D2-LP-07
3.1B - 2 - 3335 Toward a culturally sensitive pedagogy: A phenomenology inquiry of eye contact	English

Author(s)	**Yin YIN,** University of Alberta, Canada

The 21st century pedagogical milieu is increasingly complicated by cultural, linguistic, and technological interchange. Global movements of migration and intercultural exchange vitalize the educational possibilities beyond geographical and ideological demarcations. While the schools welcome students with various languages, believes and customs, our educators' qualified readiness has to be examined through time. Before offering ready-made prescriptions about effective teaching, we should orientate ourselves to the concrete everyday teaching and learning experience. How the intermingle of diversified cultural, linguistic, ethnical backgrounds would mediate the pedagogical life-world and teacher-student encounter? Even more, what is it like to have an eye contact with a student, particularly, in an intercultural educational context?

Eye contact between student and teacher seems to silently convey personal, social, and cultural meanings. Drawing to the Phenomenology of Practice developed by Max van Manen (2014), this research project interviewed 15 Canadian teachers and students about their classroom eye contact experiences. Lived experience descriptions (LEDs) were extracted from the interview transcripts. The data analysis solicited the unique meaning aspects of intercultural pedagogy through exemplary eye contact accounts. The results showed that eye contact as a pedagogical phenomenon is both embedded in particular cultural habitus and a deeply human way of communication. Good teaching involves learning the cultural nuances in eye contact. The paper concludes with an appeal for pedagogical sensitivity between and beyond cultures in order to address the challenges for 21st century classroom teaching.

Higher and Teacher Education	D2-LP-07
3.1B - 3 - 3394 Voices from Kenya: Opportunities and Challenges from a Hong Kong-Kenya University Service-Learning Trip	English

Author(s)	**Chak Pong Gordon TSUI,** The University of Hong Kong, Hong Kong

Service-learning has been promoted in different Hong Kong universities. Among different foci of Hong Kong universities regarding service-learning, voices from the service-learning partners, especially from the community, have not been one of them. This qualitative research aims at contributing to this area by case-studying a Hong Kong-Kenya service-learning trip from one Hong Kong university.

In this presentation, the researcher will present his recent field-work in one Hong Kong-Kenya university service-learning trip in July, 2017 by employing observations, interviews and reflection writing as the data collection tools to capture the voices from 20 Kenyan participants including principal, teachers, students and villagers. The findings have revealed that although the Kenyan partners were generally satisfied with the service-learning trip with the Hong Kong university, more of the data reflected that the challenges between the two parties during the service-learning trip which had made the Kenyan side think the trip was not totally as what they had expected. The data of this presentation serve as the preliminary findings for the next stage of the study.

This presentation concludes that voices from the community should be equally captured if service-learning is to be more comprehensively studied. The voices should be particularly more important if the service-learning project is to be conducted between two culturally distant cultures, such as Hong Kong and Kenya in this presentation.

Science and Environmental Technology	D3-G-03
3.1C - 1 - 1180 On the development of a new mental rotation test for secondary school students	English

Author(s)	**Hak Ping TAM,** National Taiwan Normal University, Taiwan **Shu-Chi HSIEH,** National Taiwan Normal University, Taiwan

Spatial ability is an important area of study in both education and psychology for many years. Mental rotation, as a component of spatial ability, has attracted much attention from mathematics educators in many countries. Ability in mental rotation is considered by some as a good predictor of students' mathematics achievement at school. Among some mathematics educational researchers, one popular instrument to measure this ability is by way of the Card Rotation Test, which is part of the Educational Testing Service Kit of Factor Referenced Tests. It is a time-limited multiple-choice test for which some students may resort to random guessing especially towards the end of the test. This study attempts to develop a new test on mental rotation by way of paper folding, which is deemed a familiar activity by almost all children at school age. We have used a facet design approach to generate twenty items to form a preliminary test instrument. It has been pilot tested on ten students of various ages and the results is encouraging. After minor modification, we are now in the process of planning a more formal test in order to gather information regarding its validity and reliability. We intend to report our results in the final version of the paper together with a discussion of some technical aspects of this test.

Science and Environmental Technology		D3-G-03
3.1C - 2 - 2285	TOWARDS ECOLOGY-BASED ENGINEERING CURRICULAR PROGRAMS	English

Author(s)	**Leticia MARQUEZ,** UNIVERSIDAD DE MANILA, Philippines

In the 19th century the discipline of ecology has emerged from the natural sciences. Ecology is the scientific study of the abundance and relations of organisms and their interactions with the environment. Ecology-based education programs are designed with ecological principles. It integrates human activities into the natural environment for the benefit of both. Engineering achievements have improved the quality of human life. Engineering curricular programs call for an ecological concept under the context of sustainable development. The main objective of this research was to study the engineering curricular programs based on Ecological perspective. The goals were to clarify the concept, support the promising thoughts, summarize and identify the engineering curriculum that would educate students, teachers and school administrators to be ecologically literate; an education that would create impacts in sustainable development. The content analysis method of research was employed on this study. Content analysis is a method that can be used in qualitative or quantitative data. The findings revealed that all of the engineering curricular programs under study were ecologically-based and provides environmental education materials for classroom teachers and students. Number of these programs should be increased so that large number of stu¬dents can also have a chance to be involved that would lead to rapid sustainable development. Furthermore, in future research, outdoor activities should be considered as an integral part of the curriculum.

Keywords: ecology, ecologically-based, engineering curricular programs

Social Science Education		D2-LP-04
3.1D - 1 - 1092	Parent-child Emotion Psychoeducation Workshop with a set of Creative Board Game	English

Author(s)	**Ching Ki WONG,** Hong Kong Shue Yan University, Hong Kong **Dehui Ruth ZHOU,** Hong Kong Shue Yan University, Hong Kong

Chinese parenting is featured with a strong emphasis of academic achievement. A number of studies have reported the lack of emotional support in Hong Kong families. Typical emotional supportive programs involved either parents or children. This study reports a two session parent-child emotion psychoeducation workshop to promote parental emotional support and enhance the interaction between parents and children through playing together an emotion board game. 67 emotional cards with cartoon characters give both parents and children an opportunity to identify and express their own emotions in a subtle way. 45 situational cards (at school, with friends, in family) facilitate dialogues between parent and child about wide topics other than academic performance. A set of tool cards give parents handy tips how to respond to the emotion of their children. The board game with a clear route and other magic cards provide both parents and children a relaxing and playful atmosphere in exchanging their emotions in their daily events. This study reports the effectiveness of a two-session psychoeducation workshop with six pairs of parent and children playing the board games. The analysis of the self-report programme evaluation form and the comments from both parents and children participants confirms the effectiveness of this parent-child emotion psychoeducation workshop. The success of this workshop hopes to bring insight to wider application of parental emotional support programme in Hong Kong community.

Keywords: parental emotional support, emotion identification, positive emotion, negative emotion, play

Social Science Education		D2-LP-04
3.1D - 2 - 2217	Identities of Hong Kong's ethnic minority youth: A socioecological perspective	English

Author(s)	**Miron Kumar BHOWMIK,** The Education University of Hong Kong, Hong Kong **Kerry J KENNEDY,** The Education University of Hong Kong, Hong Kong **Ming-Tak HUE,** The Education University of Hong Kong, Hong Kong **Hoi-Yu NG,** The Education University of Hong Kong, Hong Kong

Socioecological framework highlights that multiple contexts such as home, school and community shape the experiences of ethnic minorities and that interaction among them exert influence on their identity and psychosocial adjustment. Grounded in the socioecological framework this paper examines how a group of ethnic minority youth in Hong Kong develops and negotiates their identities navigating through multiple contexts. It also explores psychosocial adjustment issues they experienced during their interaction with multiple contexts.   It draws on a qualitative study based on in-depth interviews with 20 ethnic minority young people from Pakistani, Indian, Nepalese, Bangladeshi and Filipino heritages living in Hong Kong. The study found that participants' experiences at home, school and community contributed to shaping their identities. Specifically, experiences at home and within same ethnic community primarily fostered their heritage identity wherein the family members and community members facilitated their connections with heritage culture. On the other hand, rest of their living experiences in Hong Kong including schooling contributed to their Hongkongers identity. The study also found that, in the process of negotiating their identities in multiple contexts, participants faced a number of psychosocial adjustment issues stemming from acculturation challenges such as "language and communication barriers"; "racism" and "family related conflicts". In the end the paper discusses important implications of the findings at the practice level for teachers, school guidance and counsel, and social work practitioners in order to better support ethnic minority youth in Hong Kong.

Higher and Teacher Education	D2-LP-04
3.1D - 3 - 1165	Against Change: Higher Education as a source of stability in the contemporary world	English

| **Author(s)** | **David TURNER,** Beijing Normal University, China |

It has become a truism that we live in an era of ever increasing change. We are encouraged to think of ourselves, and of all successful university graduates, as "agents of change". The frenetic pace of development means that knowledge rapidly becomes obsolete, with the half-life of engineering knowledge estimated as approximately 45 years.

Yet is this really true? Do not all ages think of themselves as exceptional, and above all exceptional for their rate of progress?

In the midst of such supposed change, universities have the responsibility to pass on the culture of the age from one generation to the next. They provide a stable, not to say conservative, platform on which the future can be developed. In the context of higher education, traditions matter, not least the tradition of the universities themselves. While that is not an argument that all change should be stopped, it does suggest that there is a need to examine critically the idea that change is always good, and to ask whether there is some knowledge, and some values, that stand above the general rule of decay.

This presentation will examine whether some aspects of knowledge have a longer half-life than others, and whether there are some areas where change is not desirable.

Secondary School Education	D2-LP-03
3.1E - 1 - 1062	东亚中学生数学学习策略及影响因素的性别差异研究	普通話

| **Author(s)** | **徐柱柱,** 北京师范大学, 中國 |

本研究基于对 PISA2012 学习策略评价设计和结果的分析,希望从性别的视角揭示数学学习中的策略择用规律及因素影响过程,以便更清晰地认识数学学习的性别特点。通过描述统计,了解东亚各国和地区中学生数学学习策略各类型总体水平和一般现状,并与 OECD 水平进行对比;用卡方检验分析了东亚中学数学学习策略的性别差异;使用方差分析、双因素方差分析等方法揭示数学学习策略的影响变量的性别差异以及与学习策略之间的交互作用。

研究发现一些结论:男女策略学习的也理倾向差异明显,主要表现为女生倾向使用记忆/复述策略,学习更多的是记忆或重复训练;而男生更擅长使用精细策略,尤其是男生学习数学更注重方法和应用。并且在日常生活应用和尝试新方法两类学习策略上,男生的数学学业成绩表现更为出色。研究表明,东亚各国和地区数学学习策略过程共性突出,个性差异也比较明显。与传统巧象不同,东亚表现为"更会学习"。地域之间表现为:新加坡、香港和日本中学生中,女生在控制策略方面表现突出,数学学习注重元认知监控,而上海、台湾和韩国精细策略水平高于东亚整体,注重学习方法与技巧的运用。

Secondary School Education	D2-LP-03
3.1E - 2 - 1094	中學生四邊形學習單元錯誤類型分析	普通話

| **Author(s)** | **邱正明,** 國立成功大學教育研究所, 台灣
 洪素蘋, 國立成功大學師資培育中心, 台灣 |

本研究旨在探討國中學生在四邊形單元的概念精熟情形,並了解學生學習迷思與幾何發展停留的階段,作為補救教學的參考。研究對象為 62 位中學三年級學習過四邊形單元的學生,藉由分析學生的解題歷程,偕同兩位資深中學數學教師,共同歸納學生常見的錯誤類型,並與本研究定義之技能做對應,發現學生可能的迷思概念,以及 van Hiele 幾何發展層次的停留階段。結果顯示,中學三年級學生在四邊形的學習上,會陷入典型例與互斥思維的迷思,並對應到幾何發展層次的分析期與非形式演繹期,藉此可合併技能分析結果,提供更多元豐富的資訊以增添應用價值。

Secondary School Education	D2-LP-03
3.1E - 3 - 3371	自主學習理論在中國大陸高中語文課堂的實踐操作	普通話

| **Author(s)** | **黃華,** 香港浸會大學國際學院, 香港
 穎彤胡
 譚慧樂 |

自主學習的理論已傳入中國大陸,但仍處於由理論到實踐的過渡。國外的實踐多從數學、外語教學入手,而且研究對象較少為高中的學生。這篇文章是利用行動研究,以同學們參加市政府組織的名著閱讀競賽為背景,探討母語教學中如何實踐自主學習。嘗試自主學習在高中語文課堂的可操作性,特別是并希望在高考語文的備考起借鑒作用。教師應該和學生討論具體的教學目標,了解學生的困惑和能力,然後選擇教學材料,一起確立具體的課程安排。這能提高學生的自主性和行動力,并有利於學生接納、學習、內化自主學習的模式。

Primary School Education	D4-G-03
3.1O - 1 - 1032 Dramatization Approach to Vocabulary Instruction	English

Author(s)	**Ka Yan Hamorn LAU,** The Education University of Hong Kong & American International School, Hong Kong

This mixed-methods classroom study investigated how Wordly Wise 3000, a well-structured American vocabulary program, was taught to grade one students under two conditions: (a) textbook-only or (b) with dramatization, within the same time frame. Both quantitative data (from pre- and post-tests) and qualitative data (from interviews) were collected for triangulation purpose. The results showed that the condition involving a reduced amount of textbook content, replaced with drama games led to more vocabulary retention than the textbook-only condition. Students performed better in "with dramatization" condition than in "textbook-only" condition by a mean difference of 7.1 (n=24). Participants reflected that vocabulary learning was more joyful and interactive under "with dramatization" condition than "textbook only" condition. It was concluded that using textbooks supplemented with drama games was more effective than using only textbooks in teaching vocabulary to children. This study is insightful for administrators and teachers of schools that use a textbook-based vocabulary program. Guidelines on integrating dramatization in a vocabulary program are discussed. Acknowledgements: This research was selected to receive East Asia Regional Council of Schools (EARCOS) Action Research Grant. The research findings will be published in the fall issue of EARCOS Triannual Journal and presented in EARCOS 16th Teachers' Conference in Bangkok in March 2018.

Primary School Education	D4-G-03
3.1O - 2 - 1069 The Views of Teachers on the effectiveness of the Olweus Bullying Prevention Program (OBPP) in Lithuanian and Norwegian schools	English

Author(s)	**Dziuginta BARALDSNES,** Norway

Bullying is understood to be a complex and a systemic problem. Recently, it has been developed and implemented many various evidence-based, schoolwide approach antibullying programs in the school, but Ttofi & Farrington (2009, p.23) stressed, that "future interventions should be grounded in the successful OBPP but should be modified in light of the key program components that we have found to be the most effective".

The main goal of the OBPP is to make school a safe and positive learning environment The OBBP consists of a number of specific interventions at four levels: the school, the classroom, the individual, and, in some contexts, the community. This program has been implemented in many Norwegian and Lithuanian schools, but the rate of bullying is significantly different.

The aim of the research is to reveal the teachers' views on the OBBP in Lithuanian and Norwegian schools.

It has been applied non-experimental, cross-sectional, explanatory correlational research. The study is carried out using a quantitative survey approach, where data have been collected through a standardized internet-based questionnaire. The sample consists of teachers - class tutors of the 99 Lithuanian schools, which are running the Quality Assurance System (QAS) of OBPP or have implemented OBPP in 2014/2016 and 85 Norwegian schools, which are running the QAS of OBPP. Findings have revealed some significant differences in teachers' views on the effectiveness of the OBPP in Lithuanian and Norwegian schools.

Primary School Education	D4-G-03
3.1O - 3 - 1156 The Influence of Teacher's Gender on the Perception of Principals Instructional Leadership Behavior	English

Author(s)	**Dong Yu Dora LI,** Curriculum & Instruction, Hong Kong **Peng LIU,** Division of Policy, Administration and Social Sciences Education, Faculty of Education, Hong Kong

Purpose —The aim of this study was to understand the effects of the gender of teacher on their perceptions of Chinese male and female principals in their enactment of instructional leadership.

Methodology — The authors adopted the Principal Instructional Management Rating Scale to 1224 teachers in Mainland China for assessing their perceptions toward their principals' instructional leadership behaviors. Independent sample t-test and univariate one-way analysis of covariance (ANCOVA) were conducted for data analysis in order to reveal the strength of the relationship between gender and principal instructional leadership.

Results-- Descriptive results showed that female principals were perceived slightly higher at some levels. Further, the difference of perceptions between male and female teachers on female principals is larger than on male principals. ANCOVA analyses revealed significant differences (main effect) were between male and female principals at three function levels (with effect size of $\eta2$ ranging from 0.003 to 0.007). The significant differences of the perceived leadership enactment between male and female principals vary from both the direction and extent, when considering the gender of teacher.

Conclusion —The study concludes that gender of teacher was found significantly influencing the relationship between principal gender and principal instructional leadership at certain construct levels. Possible explanations toward this pattern of results were addressed with regarding culture perspective and gender identity issue. Implications and recommendations for theory and practice in local schools were discussed.

3.1G - 2267	Using Paul's Wheel of Reasoning in Diagnosing Students' Mathematical Errors	English

Author(s)	**Kenan Kok,** Teacher, Singapore

Abstract:

Critical thinking is the art of analyzing and evaluating thinking and with a view to improving it (Paul & Elder, 2008). When the "Elements of Thought" from Paul-Elder's Critical Thinking Model are used effectively, it can help Secondary School Mathematics teachers accurately diagnose students' mathematical errors. For mathematical errors to be diagnosed with the utmost accuracy, it is important to get to the root of the issue; the actual reason for the students' error. However, the assumptions that teachers make about students' mathematical errors might hinder an accurate diagnosis of their errors.

This workshop will therefore provide teacher participants with the opportunity to question and test their own assumptions about students' mathematical errors and to examine the impact of their assumptions on the diagnosis of these errors using the "Elements of Thought" from Paul-Elder's Critical Thinking Model. We will contrast this against an accurate diagnosis of students' mathematical errors and point out the impact that it has on students' learning in the classroom.

Learning Outcomes:

At the end of this workshop for Secondary School Mathematics teachers, participants will be able to:

- identify and address the root cause of students' mathematical errors using the four "Elements of Thought" from Paul-Elder's Critical Thinking Model as a diagnostic tool.
- understand and address students' way of thinking in mathematical errors.

Theoretical Underpinnings & Pedagogical Approaches:

Using Paul-Elder's Critical Thinking framework, mathematics teachers will be able to question their own assumptions about students' mathematical errors in order to effectively diagnose these errors. The following "Elements of Thought" from Paul-Elder's Critical Thinking framework would be used:

- Information
- Assumptions
- Implications
- Question at Issue

Using the above four "Elements of Thought", a diagnostic tool was created to enable mathematics teachers to have a systematic approach in diagnosing students' mathematical errors. The mechanics of this diagnostic tool would be explained through investigating the relationship between these four "Elements of Thought".

Reference Code	Presentation Title	Abstract	Presenter(s) / Author(s)
World-Wide Views on Socio-Cultural Perspectives and Teacher Practices			D2-LP-13
3.1H	Chair: Steven YUSSEN, University of Minnesota-Twin Cities, USA, syussen@umn.edu		
3.1H - 1 - 163	Mindfulness in education: Comparing interpretation, implementation, evaluation across international contexts	Various implementations of mindfulness in educational curricula in Asia, Western Europe, Australia, and the United States are reviewed to explore the ways in which the concept is applied to address issues in education. Through a comparative literature review and qualitative interviews with developers, providers and implementers of mindfulness curricula, the authors explore how educational experts in various countries view the role of mindfulness as a pedagogical tool. The authors address the processes by which educators in Asia, Western Europe, Australia, and the United States approach the review, implementation, and evaluation of mindfulness and meditation activities in the classroom. Also addressed are the goals and objectives of providers of mindfulness curricula and the criteria at play when educators select or "borrow" in-classroom mindfulness interventions. The authors then consider how mindfulness implementation is a process of educational borrowing and transfer, comparing how meditation and mindfulness practices implemented in classrooms relate to educational modules in the cognitive-behavioral realm.	**Tonya KNEFF-CHANG**, University of Michigan, USA, tkneff@umich.edu; **Valerie MALOOF,** University of Michigan, USA, vmaloof@umich.edu
3.1H - 2 - 115	A DisCrit Analysis of Special Education Teacher Beliefs about the Intersections of Disability and Race	Teacher beliefs about race and disability are important in highlighting how these teachers work with culturally and linguistically diverse learners in the fields of teacher education and special education. Using a mixed methods approach, this study highlighted the expressed beliefs of N=60 special education teacher candidates obtaining certification through a post-baccalaureate program at a state university in Southern California. Participants were surveyed and interviewed about their beliefs and sample essays and journal reflections from two of their courses were also utilized to capture their beliefs in multiple ways. Using DisCrit analysis, preliminary findings indicated that personal experiences with disability, as well as interactions outside of the classroom aided in the construction of more progressive beliefs about disability. Implications for this research are discussed.	**Saili KULKARNI**, California State University Dominguez Hills, USA, skulkarni@csudh-coe.org
3.1H - 3 - 4	Spiritual Intelligence and Work Performance Towards a Better School Culture	This study ascertained the level of spiritual intelligence and its relationship to work performance of the school administrators, teachers and non-teaching personnel of the Division of Silay City. The spiritual intelligence questionnaire was conducted by the researcher while the Performance Appraisal for Teachers, Performance Appraisal for School Heads and Performance Appraisal for Administrative Group for the work performance were retrieved from the Records Office in the Schools Division. For descriptive statistics, frequency counts, percentage, means and standard deviation were used. For inferential statistics, t-test for independent samples, one-way ANOVA and Pearson product moment of correlation were utilized. Findings revealed that the level of spiritual intelligence of school administrators, teachers and non-teaching personnel is high in terms of critical existential thinking and transcendental awareness while in terms of personal meaning production and conscious state expansion, school administrators 'level of spiritual intelligence is very high. There is a significant relationship between the spiritual intelligence and work performance.	**Jen-Ann VILLA,** Department of Education, Division of Silay City, Philippines, jenannvilla1986@yahoo.com

Global Issues in Open Higher Education and Free Knowledge			D3-LP-01
3.1I	**Chair: George WIMBERLY**, American Educational Research Association, USA, gwimberly@aera.net		
3.1I - 1 - 129	Inviting Education Online: The Development of an Asynchronous Graduate Program	The theory of invitational education® has its foundations in a democratic ethos, favourable perception of the environment, and positive self-concept. Invitational education® posits that a positive learning environment can be created when those involved are intentionally inviting in their attitudes and actions. People within the environment are the most crucial elements that affect whether students' potential can be unleashed to its fullness. However, in order for that model to have a meaningful impact, teachers need to have an understanding of the theory and be able to apply it to their own practice. Although invitational education® started in the US, there is growing number of international invitational education® schools – especially in Asia. With the current retirements of those early invitational education® founders from the university system, there is a specific need to ensure that there are systematic higher education training courses available. This asynchronous online graduate program in invitational education® is designed to engage students in meaningful ways in order to achieve deep, authentic and applicable learning. This session, which is primarily conceptual and experiential in nature, will focus on understanding the theory of invitational education® and the development of an academically and culturally relevant graduate program in invitational education®. However, more specifically, presenters will explore how a non-profit, multi-national university targeting teachers who are already teaching in invitational education® school, is able to intentionally invite international students into a positive experience using an asynchronous learning platform.	**Michael BARBOUR**, Touro University, USA, michael.barbour@tu.edu; **Lisa PALACOIS,** Touro University, USA, Lisa.Palacios@tu.edu **Peter WONG,** Hong Kong Education Bureau, China, khwong.peter@gmail.com; **Jim O'CONNOR**, Touro University, USA, Jim.OConnor@tu.edu;
3.1I - 2 - 190	New Challenges to Academic Publishing in Education within a Global Context	This presentation will discuss the changing landscape of academic publishing in the field of education focusing on three changes in the environment that are requiring a rethinking of the role of publishing and relations across the publishing industry and the academy. The three challenges that will be investigated are: the expansion of the higher education presence across the world, the digitization of information and implications for the dissemination of discovery and evolving policies by private and public organizations that fund research regulating who should have access to data and under what conditions.	**Carolyn HERRINGTON,** Florida State University, US, CHerrington@FSU.EDU; **Katherine KANUPP,** Florida State University, US, kps11b@my.fsu.edu
3.1I - 3 -210	Free higher education and mass media: A feasible utopia in a markestised system?	Chile is a global leader in marketised and privatised higher education. With one of highest tuition fees, families carry the weight of funding higher education. Since 2014 and in response to the demands of the Chilean students' movement for free higher education, Chile has been implementing a reform in higher education. Free higher education has been, by far, the most controversial measure of this reform. It has generated divergent discourses among actors (e.g. students, academics, and authorities), political sectors and the community in general. The debate started with the announcement of free higher education for the 50% poorest university students in 2014 and it has continued throughout its implementation. In this paper, we examine the role that mass-media and particularly newspapers in Chile have played in the construction of discourses around free higher education. Mass-media have been identified as a powerful means to create and promote certain discourses in society (Happer and Philo, 2013; Bennett, Lawrence and Livingston, 2008; van Dijk, 1995), and particularly, to frame educational policies (Cabalin, 2013). By means of a critical discourse analysis (CDA) (Fairclough, 1993) we are examining discourses about free higher education in Chile paying attention to the underlying powerrelationships	**Carolina Guzmán VALENZUELA**, University of Chile, Chile, carolina.guzman@ciae.uchile.cl; **Daniela VÉLIZ,** Pontificia Universidad Católica de Chile, Chile, dvelizc@uc.cl; **Elizabeth SIMBÜRGER,** University of Valparaíso, Chile

		and ideologies and how they unfold in newspapers that are diametrically opposed to each other. We are collecting opinion columns published two well-established and ideologically opposed newspapers: El Mercurio and El Dínamo between 2004 and 2016. In a first approach, we identify and describe the main topics addressed and the most frequent authors. In a second step, we will critically analyse the discourses around free higher education in both media. In this paper, we present some preliminary results and reflect on how feasible it to offer free higher education for all in a context in which privatization, marketization, accountability and prestige are paramount. **Acknowledgements** Work on this paper is being supported by FONDECYT 1170374 (CONICYT).	
3.1I - 4 - 211	Open Higher Education: What Are We Talking About?	The rise of the open software movement has inspired a broader culture of openness in OECD societies. With open data, open knowledge, open science, open innovation, open learning, open education, open migration, open networking, open government, openness has become a key feature of our societies, and its implications, a key dimension of strategic foresight. Usually, in higher education, "open" means that there is no or little formal barrier for students to enrol, to acquire a credential, or just to learn higher education content. The study argues that open enrolment institutions represent the degree-granting segment of open higher education, which also has an informal (non-degree granting) counterpart: open learning at the higher education level. Within degree-granting institutions, open degrees and some open learning processes also correspond to the philosophy of openness. One key question raised by open learning provided by higher education institutions, for example massive open online courses (MOOCs), is whether, and if yes, how they should be formally recognised. Openness has a global dimension, and the experience gained in the recognition of foreign degrees could be mobilised to address this recognition challenge. After showing how open science, open government or open data are relevant to the "opening" of higher education, the paper uses the proposed analysys to speculate about how these trends in openness could shape the future of higher education	**Stéphan VINCENT-LANCRIN**, Organisation for Economic Co-operation and Development (OECD), Stephan.VINCENT-LANCRIN@oecd.org

3.1J	**Chair: Motlalepule Ruth MAMPANE,** University of Pretoria, South Africa, ruth.mampane@up.ac.za		
3.1J - 1 – 119	A Study on the Policy of Health Education for Adolescents in China since 1978	Based on the relevant policies of health education in primary and secondary schools since China's reform and opening up, this paper conducts a textual analysis from quantitative and qualitative aspects to explore the development and features of the health education model in primary and secondary schools. This paper finds that the number of policies of China's health education model in primary and secondary schools show different developmental features; most of policies are formulated by the lowest authoritative departments; and the Ministry of Education is the major policy maker. The paper also finds out that the health education model in primary and secondary schools has undergone the following development process: the physiological health courses supplemented with lectures; then follows the establishment and standardization of the health education courses; diversified trends as physical education and health courses becoming the main carrier; and the combination of related subject teaching and educational activities, the combination of	**Ying YUAN**, Beijing Normal University, China, bnuyuanying08@163.com **Liu WENLI,** Beijing Normal University, China

		classroom education and extracurricular practice as well	
3.1J - 2 - 65	Behavior problems of students in primary school and their impact on academic achievement and progress: case of Russia	The purpose of the study was to examine the psychometric quality of the Russian version of Behavior rating scale based on DSM-IV criteria and to investigate the relationship between individual ADHD symptoms and the reading achievement of these children during their first three years of schooling. The Rasch analysis was used to ensure the scale quality and factor structure. The academic progress of children rated by teachers based on the scale as having or not having behavioral problems was analyzed. Effect sizes of behavior problems for their reading achievements were calculated at three time points. The Behavior scale was confirmed to be well applicable in Russia. The scale can be used for potential detection of ADHD symptoms among primary school children. The results show that children behavior is negatively connected to their achievement in reading. The effect sizes from the start to the middle of primary school indicated large differences in reading achievement between groups of children with and without behavioral problems. The difference increased over time. The effect size was higher for the criteria related to inattention and combined type than those related to hyperactivity/impulsivity.	**Elena KARDANOVA**, National Research University Higher School of Economics, Russia, ekardanova@hse.ru; **Alina IVANOVA,** National Research University Higher School of Economics, Russia, aeivanova@hse.ru
3.1J - 3 - 61	Student immigrant status, sense of belonging, achieving motivation, and experiences with teacher fairness: a comparative study	The present study explores how immigrant students' ethnic and academic self-concepts intersect with school norms and practices through the 2015 PISA. Researchers created stratified random samples to create balanced groups of first-generation, second-generation, and native 15-year-old students within nine countries/economies using the immigrant status nominal variable. The contexts of Australia, Belgium, Canada, Denmark, Hong Kong, Singapore, United Arab Emirates, United Kingdom, and United States were selected for geographical diversity and differing dominant political and social contexts regarding immigration. Additionally, each location was chosen to have an adequate sample size, which ranged from 1,104 participants in Denmark to 8,598 participants from United Arab Emirates. In addition to descriptive statistics comparing the countries, researchers conducted one-way analyses of variance to determine if first-generation, second-generation, and native students differed in their sense of belonging (subjective well-being in school), achieving motivation, and experiences with teacher fairness. The study's findings suggest that there is a connection between national norms and policies regarding immigration, teacher behavior, and student achievement motivation and sense of belonging. Future research should more closely examine dynamics within countries to predict student achievement of first-generation students, because when the present study is viewed within the context of prior study describing the educational disadvantage of immigrant students (including language learning, social isolation, and educational discontinuity), these findings regarding sense of belonging, teacher fairness, and achieving motivation are troubling.	**S Marshall PERRY,** Saint Mary's College of California, USA, smp21@stmarys-ca.edu; **Rochelle HOOKS,** Saint Mary's College of California, USA, rh19@stmarys-ca.edu; **Gilbert J ARMENTA**, Saint Mary's College of California, USA, gja2@stmarys-ca.edu; **Deanna UTLEY,** Saint Mary's College of California, USA, dku1@stmarys-ca.edu; **Laura MORRIS,** Saint Mary's College of California, USA, lsm7@stmarys-ca.edu
3.1J - 4 - 6	In Search of the Good Life: Perspectives of American and Chinese Young Adults	This paper reports research about two different nations' dreams (United States, China), how the good life is presented in each country and the futures that the dreams fuel. In the United States, the American Dream traces to the Declaration of Independence and the belief that "all men [sic] are created equal" with the right to life, liberty and the pursuit of happiness. In China, the Sino Dream has to do with prosperity, collectivism, socialism and national glory, according to Oiushi, the Communist Parties' official journal. Two research questions drive this investigation into the American and Chinese Dreams: (1) How do university-attending, American and Chinese young adults interpret and articulate the dreams of their respective	**Cheryl CRAIG,** Texas A&M University, USA, cheryljcraig@gmail.com; **Yali ZOU,** University of Houston, USA, yzou@uh.edu

nations? and (2) Given the common, global backdrop, how are the American Dream and the Chinese Dream as understood by educated American and Chinese young adults alike and different? Recent surveys anonymously completed by undergraduate and graduate students enrolled in U.S. and Chinese universities form our sources of data. The students' responses to the survey questions have been analyzed quantitatively and qualitatively. Results have been generated for both countries. This allows for the comparison and contrast of the data supplied by educated youth in both nations. Some themes unearthed by this survey research study are: (1) the effect of political systems on the nature of national dreams; (2) the impact of local, social milieus on how national dreams are interpreted; (3) the influence of the spread of economic prosperity; and (4) the power of education.

WERA Focal Meeting Symposium

Reference Code	Presentation Title	Presenter(s) / Author(s)	Chair/Discussant(s)
Diversity in Education - global challenges, local perspectives – Part 1: Dimensions of Diversity			**D3-LP-07**
3.1L - 28	The Diversity-Paradox. Introduction to the Symposium	**Ingrid Gogolin,** Universität Hamburg, Germany, Gogolin@uni-hamburg.de	**Chair:** **Ingrid Gogolin,** Universität Hamburg, Germany, Gogolin@uni-hamburg.de **Discussant:** **Mustafa Yunus ERYAMAN**, Canakkale Onsekiz Mart University, Turkey, eryaman@comu.edu.tr
	Differences in achievement between home language and language of learning in South Africa: Evidence from prePIRLS 2011	**Surette VAN STADEN,** University of Pretoria, South Africa, surette.vanstaden@up.ac.za; **Roel BOSKER**, University of Groningen, Netherlands, r.j.bosker@rug.nl; **Annika BERGBAUER**, Center for the Economics of Education, Germany, bergbauer@ifo.de	
	Language diversity and its implications for educational attainment. Is there a reciprocal relationship between career aspirations and language skills?	**Hanne BRANDT,** Universität Hamburg, Germany, Hanne.brandt@uni-hamburg.de; **Marina LAGEMANN,** Universität Hamburg, Germany, Marina.trebbels@uni-hamburg.de	
	Against all odds? Educational Success Vietnamese and Turkish Families in Germany	**Bernhard NAUCK,** Technical University of Chemnitz, Germany, bernhard.nauck@soziologie.tu-chemnitz.de; **Birger SCHNOOR**, University of Hamburg, Germany, Birger.schnoor@uni-hamburg.de	

Abstract

Over the past fifteen years, the number of international migrants worldwide has continued to grow rapidly: The number has reached 244 million in 2015, a 41 per cent increase compared to 2000. Almost two thirds of all international migrants live in Europe or Asia (UN 2016). Sources of migration vary considerably: While conflicts and crises are causes of forced migration (refugees), global mobility enables voluntary migrants, including rising numbers of international students, to work or study in other countries. In addition, internal migration from rural to urban areas plays a vital role in population redistribution in the global South (Rees et al. 2016). The effects of migration are concentrated in urban areas: Especially global cities like London, New York, Hong Kong, or Berlin and Hamburg (Germany's two biggest cities) are major draws for migrants (WMR 2015). In Hamburg, Germany, every second child is born in a migrant family. A large proportion of the world's citizens is growing up with more than one language. Migration stimulates the increase of social, cultural, linguistic diversity in today's societies. Diversity and change are unstoppable realities of the 21st century in urban areas worldwide (Benson, Chik, Moloney i.p.). From an economic point of view, migration is necessary and often welcome. Migrants boost the working age population, they contribute more in taxes and social contributions than they receive in benefits, and they fill important niches in fast-growing as well as declining sectors of the economy (OECD 2014). At the same time, migrants remain among the most vulnerable members of societies – even in liberal democracies with relatively strong economies (Piller 2016). They are overrepresented in the unemployment statistics, they receive lower wages than nationals. Students with a migrant background are characterized by significantly lower levels of educational performance and attainment than their non-immigrant peers in most OECD countries (cf. Klieme et al. 2010). A migration-related diversification of the population obviously brings with it both: opportunities and

challenges to education systems worldwide.

In order for the existing and growing diversity to succeed and to enrich our societies, it is necessary to look at and understand different factors that have shown to be of importance when it comes to the educational success and well-being of migrants and their children. In our symposium, we will explore this globally relevant topic from different perspectives and, based on empirical research, try to provide answers to the following questions: Which are the relevant features of diversity that facilitate or inhibit educational success, and under which conditions do such features unfold positive or negative effects? Which role do students' multilingual language skills play for their educational attainment; under which conditions is multilingualism an asset/ a handicap? In which way can teachers and teacher education contribute to equal opportunities for all students irrespective of their ethnic origin, language and socio-economic background? How can pre-service teachers be prepared to deal with the growing heterogeneity of their prospective students, in order for them to succeed?

The proposed symposium aims to initiate a discourse on different regional or local perspectives concerning the signified global challenges. All contributions are based on empirical data which reveal features of diversity that are relevant for educational attainment in a regional or local context. The joint discussion will aim to uncover the general principles which are likely to cause educational disadvantage in a global perspective. Based on this analysis, the participants will identify starting points for innovation and reform of contemporary education systems. The proposed symposium will be based on 8 contributions. Part 1 of the symposium will be focussed on the identification and explanation of dimensions and features of diversity in different regional contexts. Part 2 of the symposium will present different approaches to deal with diversity and their potential effects on educational attainment and wellbeing – with an outlook on starting points for educational innovation and reform.

HKERA Hong Kong School Education Forum 2 論壇 2		
11:30-13:00	**「跨地域 STEM 教育發展」研討會暨名創教育與新加坡科學館合作啟動禮** 主持人：青年會書院　劉國良校長 主題：**The Power of STEM**　　　　　　　　主題：**STEM 教育於香港的發展與趨勢** 新加坡科學館 林直明教授　　　　　　　　　青年會書院　劉國良校長 　　　　　　　　　　　　　　　　　　　　　香港教育大學賽馬會小學 杜莊莎妮校長 主題：**STEM 完善教學方案** 香港教育局前總課程發展主任（資訊科技教育）佘孟先生	D1-LP-04
13:00-13:30	「STEM 學校實戰分享」工作坊 中學分享：青年會書院 小學分享：香港教育大學賽馬會小學 **簡介：** 「跨地域 STEM 教育發展」研討會暨名創教育與新加坡科學館合作啟動禮 名創教育將於研討會內舉行「跨地域 STEM 教育發展」論壇暨名創教育與新加坡科學館合作啟動禮，介紹與新加坡科學館作跨地域性的合作，同場設學生作品展示，與來自不同地域的參加者一同探討跨地域 STEM 教育發展的機遇與挑戰。	

| HKERA International Conference Paper Presentation | 11:30-13:00 |

Early Childhood Education	D3-G-09
3.2A - 1 - 1116 Developing a Teaching Model for Environmental Education in Early Childhood	English

| **Author(s)** | **Josephine DESOUZA,** Ball State University, United States |

Children experience science by interacting with the natural world and learning science plays an important part in the development of skills that are inherent to the process of inquiry. This study was conducted at a Child Development Center in Midwestern United States over a period of three semesters in which preservice teachers taught four year olds for a period of four weeks each semester. The purpose of the study was to explore the development of a teaching model that comprised of preservice teacher's content knowledge, knowledge of the environment in which they taught, and the knowledge of the inquiry process as they taught in an outdoor classroom. The participating preservice teachers were enrolled in a science methods course and designed inquiry-based lessons using the elements of the landscape. The ethnographic methodology was used in which the researcher was a participant observer. The lesson plans, reflections on teaching and the data on the observations of the lessons taught by the preservice teachers was collected. This study also resulted in the realization that teaching environmental education in the early years will lead to developing attitudes that are positive and encourage children to respect living things. Educators also recognized the significance of young children's curiosity and the importance of providing open-ended, inquiry-based explorations in the early years.

Early Childhood Education	D3-G-09
3.2A - 2 - 1121 Developing child-centred play pedagogy from children's perspectives	English

| **Author(s)** | **Pui Chi Chrysa KEUNG,** The Chinese University of Hong Kong, Hong Kong
Kit Ho Chanel FUNG, The Chinese University of Hong Kong, Hong Kong |

Children's needs, interests and stages of growth have been widely recognized as some crucial aspects to underpin the development of play-based curriculum, but research that focuses on investigating children's views of play and learning is rather limited. The purpose of this paper seeks to enrich the existing literature by arguing the importance of respecting children's agency as they participate in child-centred play-based learning activities. Interpretive method was employed for investigating children's perceptions of play and learning. Four groups of children from different preschools that considered their curriculum play-based were observed, and post-observation interviews with children were conducted. Data were collected through non-participation observation during teacher curriculum planning meetings and when the respective curriculum was delivered in class. Feedback and other valuable information gathered from children focus group interviews also formed an important source of data for the present study. Based upon the observations made on children' play-based learning in lesson, this paper scrutinized (i) how children were involved in play-based learning, (ii) how children's learning was initiated (by teacher or by children themselves), (iii) how teachers made pedagogical choice to engage children in learning through play and to safeguard their play-based learning, and (iv) the unique settings that are conducive to play-based learning, and in which children can make free choices to direct their play and learning. Findings from children focus group interviews further revealed how children perceive if an activity is play-based or teacher-led and what they valued most upon their participation in child-centred play activities.

Early Childhood Education	D3-G-09
3.2A - 3 - 1134 Chinese teachers' and parents' perspectives on learning through play	English

| **Author(s)** | **Shu Chen WU,** The Education University of Hong Kong, Hong Kong |

This qualitative study investigated Chinese teachers' and parents' perspectives on and understanding of learning at play. A total of 14 teachers and 6 parents took part in this study. Among the participants, 6 kindergarten teachers were interviewed to obtain their perspectives on learning at play. The participants assisted the researchers in the selection of exemplary play episodes used in their own classrooms. Four three-minute videos containing the largest amount of learning elements based on the teachers' views were selected from each culture. Applying video-cued multivocal ethnography, the selected video clips were shown to 8 other teachers and 6 parents in focus groups to elicit their perspectives on and understanding of learning at play. The findings revealed different social representations of learning at play in Hong Kong, the contributions of which are important and useful for professional practices and curricular policies.

Language and Literacy	D2-LP-07
3.2B - 1 - 1128 Linguistic diversification in contemporary classrooms: What are the priorities for education research?	English

| **Author(s)** | **Sarah MCMONAGLE,** University of Hamburg, Germany
Antje HANSEN, University of Hamburg, Germany
Ingrid GOGOLIN, University of Hamburg, Germany |

Classrooms are increasingly diverse under the effects of globalisation. Linguistic diversity is therefore a key concern for education systems worldwide. We argue that education research has a critical role to play in exposing multilingual realities. The present study was conceived to gauge the research priorities in this area among a panel of expert scholars. We asked them: What are the most pressing research needs in the field of language education and multilingualism?

This study was conducted in Germany with 200 expert scholars in two rounds of enquiry. The first round assumed an open format in which experts were asked to express their priorities in the research field. Their answers were analysed and abstracted into closed items for the second round; participating experts were asked to rate these items on a Likert scale.

Items concerning research leading to more effective educational practice in multilingual settings received highest priority. We identified a general tendency to move away from mere descriptions, to research that provides results for empirically informed educational design. Furthermore, our experts identified an urgent need for research on the effects of teacher training and the required competences among educational staff. Concerning multilingual education, respondents prioritised research on content learning over skills development in the languages involved. Participants found topics such as family socio-economic background, gender and age to be sufficiently researched.

Germany is not unique in issues regarding multilingual classrooms and the need for timely research. This study is therefore relevant to other contexts, and the methods are readily transferable.

Language and Literacy	D2-LP-07
3.2B - 2 - 2281 The predictive validity of the Vericant Spoken English Evaluation score for admission to US academic institutes among Chinese Applicants	English

Author(s)	**Guy SIVAN,** Vericant, China **Linxiao WANG,** Vericant, China **Arie COHEN,** Bar Ilan University, Israel

The purpose of the present study is to examine the predictive ability of the video-based Vericant Spoken English Evaluation (SEE) score for acceptance to US academic institution among Mainland Chinese applicant. Due to an overwhelming number of Chinese students applying to US academic institutions in recent years, the above-mentioned method provides a fraudulent-resistant and scalable solution for assisting admissions decisions.

The process includes an in-person interview of each candidate spanning 15+ cities in Mainland China. The interview is recorded on video and then anonymized and obfuscated and sent to the Assessment team in the US. In the US, the video is watched and rated using Vericant's SEE Rubric, which is a modification of the Common European Framework for Reference of Language (CEFR) and includes five sub-categories of spoken language proficiency. These five sub-categories are: Range, Accuracy, Fluency, Interaction, Coherence. The videoed interview is then delegated randomly for a rating to two Vericant's trained raters. In a case of a mismatch between raters, the video is re-evaluated by up to an additional three more experienced and senior raters before the score is validated.

Data analysis of the SEE scores of several thousand participants as well as the resulting admission decisions to over a hundred competitive academic institutions in the US over a six years period indicates that the SEE is a valid measure for predicting admission to academic institutes in the US.

Language and Literacy	D2-LP-07
3.2B - 3 - 3366 Regional Inequities in English Pronunciation Development in High Schools in Mainland China: An Ethnographic Case Study	English

Author(s)	**Yilu NIE,** The University of Hong Kong, Hong Kong **Margaret LO,** The University of Hong Kong, Hong Kong

The deepening of globalization has led to unprecedented enthusiasm for English learning across China. However, due to urban-biased governmental investment in education and regional disparities in socioeconomic advancement, the development of English language education in different regions has been unequal, especially English pronunciation development. Engaging with Bourdieu's social theory of practice and a poststructuralist understanding of agency, the present study aimed to unpack the social complexities in pronunciation development by examining the social and ideological constructions of English pronunciation in two state-run high schools respectively in two socio-economically differentiated regions in China. Theorizing each school as a subordinate educational field, we aimed to examine how students' and teachers' perceptions of pronunciation development served as both a "structured structure" and a "structuring structure" in the field they acted, and how the structure of the field was reproduced or negotiated in their practices around pronunciation development.

An ethnographic case study approach was adopted and participant observation, interview, and document collection were employed as data collection methods during the two-month fieldwork respectively in each school. With richly contextualized data, we conducted inductive, thematic, and theoretically-informed data analysis. Preliminary findings showed that the test-oriented discourse seemed prevalent in English language classrooms in the two schools, as they were both fields subordinate to the broader educational field. However, in the school in the socio-economically advantaged region, English teachers' habitus seemed to have generated their better identifications of students as English learners, and they, together with students, discursively co-constructed more oral English practice around pronunciation development.

Curriculum Instruction Assessment and Policy	D3-G-03

3.2C - 1 - 1137	Community Engagement within Informal Learning Curriculum: Challenges Faced and Lessons Learnt in Preparing the Next Generation of Active Citizens	English

Author(s)	**Kankana MUKHOPADHYAY,** National University of Singapore, Singapore **Sue CHANG-KOH,** National University of Singapore, Singapore

This paper illustrates and critically analyzes the potential of using community engagement as a teaching and learning tool in an Asian university's residential college program designed to prepare the next generation of active citizens.   Community engagement, embedded within the informal curriculum of the College, is used to encourage students to initiate and engage in unique ways of interacting, learning and critically thinking about various forms of marginalization of different communities.   Grounded in empirical evidence obtained from the details of the programs documented by a diverse group of undergraduate students over the past four academic years (2013/14 – 2016/17), our paper systematically analyses the role of community engagement in pedagogical practices of teaching and learning active citizenship through hands-on experiential learning models.   Adopting a constructivist philosophical paradigm, in-depth analyses using content-analysis method (Krippendorff, 2013) has been conducted to study the citizenship competencies that developed through more than 80 programs during this time period involving more than 50% of the College students in each time period.   Preliminary analyses illuminate positive trends towards achieving citizenship competencies – building awareness and deeper understanding, developing empathy, and acquiring skills (like leadership, team building etc.) – through participation and involvement in various community engagement programs.   In addition, the paper also discusses how it has confirmed and complexified understandings of the affordances of community engagement practices and its support for emerging active citizens in helping them understand the different forms of values in such practices of engagement and the importance of valuing those practices to contribute productively to the community.

Curriculum Instruction Assessment and Policy	D3-G-03

3.2C - 2 - 3351	The role of Liberal Studies (related disciplines) in the Umbrella Movement	English

Author(s)	**Yan Wing LEUNG,** The Education University of Hong Kong, Hong Kong **King Man CHONG,** The Education University of Hong Kong, Hong Kong

This is a report of a case study of students and Liberal Studies teachers on the role of LS in the Umbrellas Movement. From the interview data and literature, first, we would like to dispute the accusation that LS has triggered the students to participate in the Occupying Movement. Instead LS has equipped students with knowledge, concepts, values, competence to analyse social and political issues critically from different perspectives so that they could make informed, and independent decisions. It also helps to develop students' ability to evaluate issues from moral perspectives.
Second, we hypothesize that when the Standing Committee of the National People Congress of PRC announced the universal suffrage for the Hong Kong Chief Executive on August 31, 2014, some students analysed and compared the proposal with Article 25 of the International Covenant on Civil and Political Rights and came up with an cognitive judgment that the decision did not meet the three criteria of a "genuine universal suffrage". Some even had made a moral judgment that the decision was political unjust, leading to moral passion of upset and anger, which motivated them to take political action and participate in the Occupying Movement. Some even argued that it is their moral obligation as reflected in the slogan, "living in an era of confusion, we should have a sense of obligation". Hopefully, this sharing could shed some light on the understanding of the role of LS on youth's civic participation and the causes of youth's   political action, and on curriculum development.

Curriculum Instruction Assessment and Policy	D3-G-03

3.2C - 3 - 2219	Factors influencing students' reflective thinking in e-portfolios practices at a higher education institution in Hong Kong	English

Author(s)	**Foujia SULTANA,** The Education University of Hong Kong, Hong Kong **Cher Ping LIM,** The Education University of Hong Kong, Hong Kong

This paper seeks to identify the factors supporting or hindering students' development of reflective thinking or reflection through working on e-portfolios at a higher education institution in Hong Kong. Six students were selected to participate in the study from one of the groups of GECC (General Education Consolidation Course) based on their scores in first reflective essay. Two in-depth interviews with each of the selected six students, totaling 12 in-depth interviews were carried out. The focus of the first in-depth interview was to understand what supported or constrained their reflective thinking from their perspectives. The second in-depth interview was carried out for some clarification purpose from the first interview and also to have more detailed information. The first interview was conducted after students had received scores for their first reflective essay. The second interview was conducted after students had finished their course work and submitted their e-portfolios to the supervisor.   In addition, students' individual consultations with their supervisor were observed. Furthermore, all six students' e-portfolios were analyzed and each student's two reflective essays totaling twelve reflective essays were critically analyzed. The study found supporting factors such as support or training from the university; support from supervisor; peer feedback, to name a few. On the other hand the study also found hindering factors such as technical skills; limitation of the platform of e-portfolios; language skills, to name a few. The paper provides a detailed account of how all different factors interacted with students' development of reflective thinking.

3.2D - 2230	Culturally Attuned Pedagogy: Exploring Multiple Cultural Realities	English

Author(s)	**Reshma Ramkellawan,** Ad Astra Per Aspera Consulting, United States **Jacobe Bell,** Elevate Now Consulting, United States **Kisha Porcher**

The facilitators of this presentation believe there is a way to embrace and authentically incorporate students' cultural realities (Emdin, 2016) while simultaneously preparing students of color to be competitors in the academic marketplace. In order for this shift to occur, however, teachers must be willing to engage in culturally attuned pedagogy. Culturally attuned pedagogy is built on the prior theories of Ladson-Billings (1995), Nieto (2009), Tatum (2003), Wortham (2003) and Gee (2015). Ladson-Billings, the pioneer of culturally relevant and culturally responsive pedagogy, speaks to the need for explicit inclusion of students' cultural experiences in curriculum and instruction. Nieto's work also references the need to include students' cultural capital rather than assuming a deficit in culture. Tatum, Wortham and Gee each discuss variations of the same notion; socio-linguistics is evidence of one's lived experiences, and subsequent socio-economic hierarchies. One might wonder as to what is the connection between these five authors and culturally attuned pedagogy. Culturally attuned pedagogy is the explicit shift in a teacher's mindset as he or she attempts to move beyond superficial attempts to incorporate aspects of students' lives into the classroom. In doing so, teachers engage in continuous metacognition around why they choose to utilize specific pedagogical approaches, and how said practices are indicative of their socio-economic experiences, as students. This metacognition, coupled with teachers' movement towards acknowledging students' cultural realities allows them to become "attuned" to their students' instructional needs. The proposed presentation is designed to engage audience members in an awareness of the need for pedagogical practices that are grounded in cultural realities by providing participants with theoretical and practical frameworks for culturally attuned instructional practices. There are two objectives for this workshop:

Participants in this workshop will reflect on their own experiences as teachers and learners, when it comes to multiple cultural realities.

Participants will apply best practices to their classrooms that incorporates strategies that are attuned to students' cultural realities

Workshop facilitators will segment the workshop into three components: a theoretical framework that elaborates on prior research, self-reflective conversations, and tactical strategies for embracing cultural realities of neo-indigenous students. More information about the elements of each component is provided in the interaction section. However, the rationale for this structure is to ensure that participants see the tactical strategies as more than the latest "trick" for reaching urban students, and that said approaches are grounded in years of education theory.

WERA Focal Meeting Paper Presentation

11:30-13:00

Reference Code	Presentation Title	Abstract	Presenter(s) / Author(s)
International Findings on Preparing Students at School-Level for Critical Challenges			**D3-LP-01**
3.2E	<u>Chair:</u> **Elizabeth Spier**, American Institutes for Research, USA, espier@air.org		
3.2E - 1 - 73	Developing Historical Thinking: Exploratory case studies of disciplinary teaching and learning focused on the development of students' meta-conceptual understanding in a PGCE course and an 11-12-year-old classroom in an English school	Japanese history education is moving from a focus on the products of subject disciplines towards a focus on fostering pupils' thinking skills and disciplinary competencies. The Japanese literature on history education has, however, not explored what history as a discipline means in English classroom contexts. This paper reports two exploratory case studies of the teaching of the historical meta-concept 'interpretations', first, in an initial teacher training context and, second, in a Year 7 classroom. The paper aims to understand what historical thinking and meta-concepts mean in the context of disciplinary teaching and learning as well as to understand how trainees and pupils are taught the meaning of meta-concepts like 'interpretations'. The data sets analysed in this paper arise from the observation of a PGCE history lecture in England and from the observation of one lesson taught to a class of 11-12-year-old pupils in one English secondary school. Data were analysed qualitatively. The study highlights the challenges of learning meta-concepts like 'interpretations' which can be very abstract to understand in the context of the past, even for trainee teachers. The importance of the explicit study of the nature of interpretations before starting historical enquiry is highlighted as is the use of strategies that aim to develop understanding of the meaning of 'interpretations' using visual sources and materials related to learners' lives in the present. This paper presents one of the pedagogical aspects of fostering historical thinking – developing explicit knowledge of meta-concepts, in order to advance historical thinking and enquiry-based learning.	**Hideyo SUGAO,** National Institute for Educational Policy Research, Japan, hideyonn@gmail.com

3.2E - 2 - 53	Does effort differentiate the career path after high school? The Evidence of structural and individual differentiation of career path from the Japanese longitudinal data	There are numerous sociological studies that question how the structure shaped by socioeconomic background and high school tracking differentiates students' career paths after high school graduation. However, few have considered how individual action is shaped by structure and how it defines one's career path after high school. We introduced the concept of effort to investigate the mechanism in accordance with research by Carbonaro (2005). Our analyses, based on nationally (Japanese) representative data, revealed the following: (1) the high school track affects effort at enrollment and during the high school learning process but SES has little effect at enrollment (although it has some influence during high school); (2) effort at enrollment shapes effort during high school; and (3) effort at graduation mediates SES and tracking effects on careers after high school. These results indicate SES and high school tracking have indirect effects on the career path after high school mediated by effort as an individual action in addition to their direct restriction of the career path. These findings point to the importance of being attentive to individual effort in inquiries regarding inequality and differentiation of career paths after high school. Further, they suggest that there is the risk of stressing the importance of non-cognitive skills such as grit and thereby putting too much responsibility not on structure but on individuals and families.	**Yasufumi YAMAGUCHI,** The University of Tokyo, Japan, yasufumi.yamaguchi22@gmail.com
3.2E - 3 -135	The Assessment of Deeper Learning in PISA	Worldwide interest in improving student outcomes fuels innovation and reform across the globe as consensus grows that today's students' future success depends on their capacity to use knowledge to think critically, solve complex problems and communicate effectively (Hewlett, nd; OECD 2016). Are reforms working? Is innovation effective? Valid answers depend on measures that reflect deeper learning. That what gets assessed gets taught (Bachman & Palmer, 1996; Cheng & Watanabe, 2004; Hamilton, Stecher & Yuan, 2008) also motivates concern with deeper learning in tests. Because of its high regard and use cross-nationally as an application and problem-solving test, the Program for International Student Assessment (PISA) may serve as a possible benchmark for the representation of deeper learning. The study uses Webb's 4-point Depth of Knowledge metric to address three primary questions: 1.To what extent does PISA assess deeper learning in Reading Literacy and Mathematics Literacy? 2.How does PISA's depth of knowledge compare to that in other prominent national and international assessments? 3.What are study implications for design and use of assessments that match today's imperatives for student learning?	**Joan HERMAN,** CRESST/UCLA, USA, herman@cresst.ucla.edu

3.2F	Chair: Lauri JOHNSON, Boston College, USA, lauri.johnson@bc.edu;		
3.2F - 1 - 171	Chinese Oversea Students in the U.S.: From 1850 to 2016	Despite being the top sending country of international students in the U.S., little is known about the historical trends and changes in motivations, funding sources, enrollment, and career route of Chinese international students in the U.S. In response to the research gap, this study reviews the history of Chinese international students from 1850 to 2016 under four major waves. A paradigm featured as being more diverse, dynamic, fluid is drawn in summary of the new trend for Chinese international students.	**Shaohua PEI,** Iowa State University, USA, lindapei@iastate.edu
3.2F - 2 - 169	Comparative Education Research: A Nested Cross-National Research Design for Studying School Systems	The school system design has become a key instrument for school improvement with the emergence of alternative systems and the redesign of existing ones around the world. Yet, comparative education research has not capitalized on these developments. In this paper, we outline and motivate a 'nested comparative research design' for studying school systems cross-nationally where school systems as nested in nation states are the unit of analysis. By comparing similar school systems in different countries we can generate new insights into how systems organize for instruction and its improvement and how this work is influenced by the different sociopolitical circumstances – institutional environments - in which similar school systems operate. Our paper is based on a comprehensive review of the empirical literature on six focal school systems and on qualitative data from an ongoing comparative study of six purposefully sampled school systems (e.g., city school system, Catholic School system) involving a combination of document analysis, interviews and observations. We advance two main findings. First, we describe and justify a nested cross-national research design for studying how school systems define, design, and organize instruction and instructional improvement efforts. We show how comparing similar systems in different nation states can generate new understandings about improving education. Second, we show how school systems efforts to manage their shifting institutional environments influences how they (re)define instruction. We identify key constructs for framing this comparative work on school systems.	**James SPILLANE**, Northwestern University, US, j-spillane@northwestern.edu
3.2F - 3 -69	Internationalization of Lesson Study: Examining Issues and Challenges in the Professional Learning Community from a Sociocultural Perspective	This study examines challenges and issues of lesson study, a Japanese approach to professional development, by exploring the context-specific setting of a Javanese school. Lesson study has been implemented in over 40 countries and has attracted significant attention from the international education community. While there have been initiatives to build a professional learning community using lesson study, there are many challenges and issues in education transfer. Past research suggests there is often a discrepancy between the existing social norms and newly implemented policy/curriculum prescribed; which results in unchanged practice or the superficial implementation of new pedagogy (Brodie et al., 2002; Sikoyo, 2010). The criticism against PISA for standardizing education quality and measuring student performance based on narrow sets of standards suggests the impossibility of education discussion without consideration of socio-cultural contexts. In order to understand the complexity of educational practice, local interpretations and meanings are important. Pedagogic practice is shaped by various factors including school resources/facilities, professional responsibilities and ideals, evaluation system, teacher-student relationship, and how teachers work with one another. Since policies and pedagogic practice are open to the interpretation of practitioners, "recontextualization" may lead to unintended results. This study uses conceptual frameworks to provide in-depth understanding of how the existing school structure, collegiality, accountability	**Kanako KUSANAGI,** UCL Institute of Education/University of Tokyo, Japan, nozukanako@gmail.com

		of teachers, and teacher-student relationship may obstruct building a professional learning community.	
3.2F - 4 - 177	Beyond western empiricism to global eclecticism in educational research	The current paper contemplates a shift to eclecticism of international research. -- embracing a global responsibility that includes support for ecological diversity of cultures and epistemologies. The arguments presented in the paper build upon studies of the global flow of knowledge that make visible the euro-centric biases of western educational research. The paper posits notions of eclecticism that extend to eastern and southern as well as indigenous epistemologies. In so doing, the paper seeks to unpack going beyond internationalization as an academic project to contemplating some basic questions: What might internationalization look like? What types of developments might enhance the internationalization of educational research?	**Kan WEI,** Beijing Normal University, China, kanwei@bnu.edu.cn; **Robert TIERNEY,** University of British Columbia, University of Sydney, Beijing Normal University, Canada, rob.tierney@ubc.ca

Reading at the Core of Global Education Research	D2-LP-14

3.2G	Chair: Suzanna WONG, University of Alberta, Canada, suzannaw@ualberta.ca		
3.2G - 1 - 77	Evaluation of Middle School Reading Intervention Programs Using Student Growth on Fountas & Pinnell Test	This study compared academic effects of Language! Live (LL) with Corrective Reading, Soar to Success, and Wilson reading intervention programs for middle school students reading below grade level. A quasi-experimental with matched comparison groups was designed to compare middle schools implementing LL with those using Wilson or Corrective Reading interventions. The 2015-16 Grade 5 spring and 2016-17 Grade 6 winter Fountas & Pinnell (F&P) benchmark scores were used to capture the programs' academic effectiveness. Compared with Wilson and Corrective Reading intervention programs, results showed that Hispanic and African American students in LL program outperformed their counterparts, but not statistically significant. White students in LL program underperformed their counterparts significantly. No significant gain differences among the three individual intervention programs were observed for all student groups except for Whites. These results support existing literature which suggests gains in reading from reading intervention programs are program neutral.	**Mei-Hui WANG,** Anne Arundel Public Schools, USA, mwang@aacps.org
3.2G - 2 - 174	Reading Efficiency: The Gateway to Comprehension and Motivation	The present study examined the silent reading comprehension and reported levels of motivation of 30,342 elementary, middle, and high school students in the United States who were divided into four reading efficiency (i.e., reading rate) quartile groups, using norms reported by Spichtig et al., 2016. The study also compared results across three factors of student demographics: grade level, gender, and race (i.e. Asian, Black, and White students). Data were collected via a valid and reliable web-based adaptive assessment designed to evaluate students' reading capacity (comprehension level and level of knowledge of general academic vocabulary), reading efficiency (comprehension-based silent reading rate), and reading motivation (self-efficacy and interest) (Reading Plus, Taylor Associates, Inc., Winooski, VT, USA). Comprehension levels varied significantly across quartiles within each grade group, with higher quartile groups achieving significantly higher comprehension levels. This pattern was consistent across nearly all grade, gender, and race groups. Students' self-reported levels of self-efficacy and interest also varied significantly across reading efficiency quartiles within each grade group. Students who read more efficiently generally reported significantly higher levels of self-efficacy and interest than their peers who were less efficient readers. Again, this pattern was consistent across nearly all grade, gender, and race groups. Results further revealed that students' self-reported levels of self-efficacy and interest dropped across elementary, middle, high school grade groups, and students in the lower reading rate quartiles reported especially low levels.	**Alexandra SPICHTIG,** Taylor Associates Inc., USA, aspichtig@gmail.com; **Kristin GEHSMANN,** Saint Michael's College, USA, kgehsmann@smcvt.edu; **Jeffrey PASCOE,** Taylor Associates Inc., USA, jeffrey.pascoe@readingplus.com; **John FERRARA**, Taylor Associates Inc., USA, john.ferrara@readingplus.com
3.2G - 3 - 72	The Influence of Family Environment on	This paper conducted a survey on 60,213 elementary students by using a reading test and a	**Liman ZHAO,** Beijing Normal University,

	Reading Ability of Primary School Students: the mediation effect of parental Involvement and reading engagement	questionnaire and explored the mechanism of how family socioeconomic status influences students' reading ability with the structural equation model. It was found that the path coefficient of family socioeconomic status affecting students' reading ability was 0.328. And the family socioeconomic status influences students' reading ability through the partial intermediation of reading engagement. Each path coefficient reached a significant level ($p < 0.01$). And the result shows that students' behavioral engagement can not only directly influence students' reading performance, but also affect the students' reading scores through the intermediary role of students' emotional engagement. The family socio-economic status has the largest path coefficient of influencing students' reading scores through emotional engagement.	China, 545997501@qq.com; **Jian LIU,** Beijing Normal University, **Mingman REN**
3.2G - 4 - 91	Problematizing the concept of success: Does Success for All mean the same for all?	This presentation attends to the grave concerns with regards to low levels of learner achievement that pervade research initiatives and educational debates in South Africa. In an attempt to address concerns with early reading literacy practices, Success for All started as a pilot study in 2016 in two primary schools in townships in Gauteng. Baseline data suggests a lack of reading comprehension instruction in the early grades. It further confirmed that teachers were able to introduce new vocabulary and apply phonics to some extent, but their repertoire of presenting a variety of comprehension skills to learners was limited, with a heavy reliance on the oral tradition where little evidence of learners' ability to read with understanding was observed. The facets of Success for All aims to put into practice the findings of research on effective school instruction, curriculum, school and classroom organization, assessment, accommodation for struggling learners, parent involvement and professional development. Against this background, the study aims to problematize the notion of success by exploring the views of teachers and principals of success, which are compared to the tenets of success, as conceptualized by the Success for All programme.	**Surette VAN STADEN,** University of Pretoria, South Africa, surette.vanstaden@up.ac.za; **Brigitte SMIT,** UNISA, South Africa, bsmit@mweb.co.za

WERA Focal Meeting Symposium

Reference Code	Presentation Title	Presenter(s) / Author(s)	Chair/Discussant(s)
Researching Higher Education in Asia			**D3-LP-07**
3.2I - 6	Higher-education Researchers in Asia	**Hugo HORTA,** University of Hong Kong, China, horta@hku.hk	**Chair & Discussant:** **Akiyoshi YONEZAWA,** Tohoku University, Japan, akiyoshi.yonezawa.a4@tohoku.ac.jp
	Interrogating Perspectives for East Asian Higher Education	**Rui YANG**, University of Hong Kong, China, yangrui@hku.hk	
	Higher Education Knowledge Production in Postcolonial-neoliberal Asia	**Jae PARK,** The Education University of Hong Kong, China, jpark@eduhk.hk	
	Regionalism, Regionalization of Higher Education and Higher Education Research	**Roger CHAO,** UNESCO, China, rylimchao@yahoo.com	
	Higher Education Research in Asia	**Jisun JUNG,** University of Hong Kong, Hong Kong, jisun@hku.hk; **Hugo HORTA,** University of Hong Kong, Hong Kong, horta@hku.hk; **Akiyoshi YONEZAWA,** Tohoku University, Japan, akiyoshi.yonezawa.a4@tohoku.ac.jp	

Abstract
This symposium is based on the forthcoming book project: Jung, J., Horta, H. and Yonezawa, A. eds. (2017 forthcoming). Researching Higher Education in Asia: History, Development and Future. Springer. It aims for a broad discussion on the subject of higher education research as a field of study in Asia. It targets the sharing of ideas about the evolving higher education research communities in Asia, identifying common and dissimilar challenges and looking to contribute for a greater regional articulation of these national communities, and ultimately, to the international higher education research community. We focus on a set of questions that we deem, as scholars, as critical to better understand the higher education community in Asia. These are:

-Is higher education an independent academic field in national context across Asia?

-Is there an academic community for higher education research? What are its characteristics and evolution? How is it defined?

-Are there research institutes, academic degree program, and nationally based academic journals specialized in higher education? What is their impact?

-What kinds of topics are being researched, and how do researchers collaborate with one another? Does the choice of topics follows national issues or is driven by international issues, or both?

-Are there any unique features of higher education research in terms of government policy? Are there specific funding programmes for higher education research?

-Have been higher education research developed in association with teaching programmes at universities?

Despite the rapid growth and challenges in Asian higher education, higher education research in Asia has a relatively short history and the participation of the higher education community, especially in the international one, is limited. Asian countries have somewhat similar backgrounds in terms of the evolution of higher education research. Their higher education systems are facing challenges that require the active engagement of researchers in analyzing issues that permit policymakers and managers to take informed decisions. Yet, the higher education research community in Asia seems to be atomized, dispersed and characterized by being infrequent in its focus on higher education research themes. It still relies heavily on the commitment of a few dedicated scholars, and the institutional support for these communities varies substantially among country. In some Asian countries, higher education research associations play a pivotal role in developing further the higher education community, while in others the higher education research associations failed altogether. Either they are developing very slowly or are mired with internal issues (in such cases, sometimes education administration associations – or government agencies - take the role of fostering higher education research at national level). For an interdisciplinary field such higher education research, the disciplinary organization of universities in Asia - echoing similar challenges elsewhere - seems to be proving to be an obstacle to the development of the field.

Glocal Perspectives on Decolonising Education through Inclusive Teaching — D1-LP-06

3.2H - 1	Decolonising higher education system through resilience processes	**Motlalepule Ruth MAMPANE**, University of Pretoria, South Africa, ruth.mampane@up.ac.za	**Chair:** **Liesel EBERSÖHN**, University of Pretoria, South Africa, liesel.ebersohn@up.ac.za
	Students' perspectives on multilingual approaches to the decolonisation of education through inclusive teaching	**Funke OMIDIRE**, University of Pretoria, South Africa, funke.omidire@up.ac.za	
	Globalising mobile technology for inclusivity in teacher education: the need for policy imperatives	**Ruth ALUKO**, University of Pretoria, South Africa, ruth.aluko@up.ac.za	**Discussant:** **Arnetha BALL**, Stanford University, USA, arnetha@stanford.edu

Abstract

Post-colonial emerging economies inherited the education systems of their colonisers. South Africa is one of such nations. There's a growing dissatisfaction with the state of education despite the progresses recorded in the last decades. The student-led coordinated unrest within the higher education sector in South Africa, has brought to the fore the plethora of reasons for the dissatisfaction with education. Some of these challenges include, inadequate student funding, high dropout rates, post-school unemployment, disconnect between available graduates and skills required in the labour market, alienation and exclusion due to lack of proficiency in the medium of instruction and delivery modes. Through it all our students have demonstrated high levels of resilience. Since 2015 the unrest in all 26 public South African higher education institutions has compelled both the government and university vice-chancellors to rethink and invest on teaching and learning methodologies that seems to include, promote application and incorporation of African knowledge alongside the global knowledge systems. However, not much is known about the construct of decolonisation of education and intermittently inclusion of African knowledge systems in the curriculum. Though the appeal is currently localised to a former colony of Britain, South Arica, research has shown that it has a global reach.

With our papers we hope to generate debate, looking at the issues from a global perspective while focussing on our local context. We report on and discuss data generated through qualitative research methods and data gathering strategies including, systematic review of literature, document analysis, semi-structured interviews and demographic questionnaires. The first presentation examines the participants' resilience processes and their interpretation of the construct of decolonisation of education. It also describes and presents a representation of inclusive and decolonised curriculum and education system. The second presentation explores students' perspectives on suitable multilingual approaches to the development of inclusive teaching. Based on UNESCO's suggested policy guidelines for mobile learning, the final presentation discusses an adapted framework for mobile learning that can be contextualized for inclusive teaching. The symposium will focus on international perspectives on how the decolonization of education can be achieved through resilience processes and inclusive teaching strategies in view of the ubiquity of mobile technologies. The significant of this cannot be overstated because of the similarity in the state of education in many post-colonial countries.

11:30-14:30	Lunch		Block D1 to D4 G/F

Poster Session 3	**11:30-14:30** **Block D1 to D4 G/F**

3 - 1122	Exemplars in second language writing: A written discourse analysis perspective	English

Author(s)	**Shen QIAO,** The Education University of Hong Kong, Hong Kong

This paper aims to explore the effectiveness and challenges of using exemplars from written discourse analysis perspective in second language writing classroom within academic English context. Exemplars are defined as 'key examples chosen so as to be typical of designated levels of quality or competence' (Sadler, 1987, p.200). It has been adopted across different disciplines in higher education to clarify assessment standards and teacher's expectations thereby showing what quality meant in practice. Written discourse analysis is 'systematic analysis of linguistic features and patterns occurring in written texts (Kaplan & Grabe, 2002, p. 192). Teacher's analysis of exemplars from written discourse analysis perspective hold enormous potentials to help English-as-second- language learners to understand, decode and interpret high-quality works by identifying text structures and linguistic patterns. In other words, teacher-led discussion and analysis of exemplar have broad implications for students improving their second language writing, in that the results would show the effectiveness of discourse analysis on exemplar and the better pedagogical practice teachers could adopt in analyzing exemplar. While a number of research focuses on second language writing and exemplars, empirical data pertaining to the combination of the two is far less. This study intends to fill the gap in the literature in this field. The results' implications will contribute to teachers who seek ways to improve students' second language writing.

3 - 1167	The Relationship Among Mathematics self-efficacy, Anxiety and Achievement: A Test of Gender Invariance	English

Author(s)	**LeiFeng XIAO,** Beijing Normal University, China **Jian LIU,** Beijing Normal University, China

The gender difference in mathematics achievement is regarded as an essential factor in occupational choice and lifestyle preference, male and females ending up in different kinds of professions because of differential preference for mathematics. But nowadays, many scholars found that regarding some psychological variables or achievement, males and females are the same. Thus, it's essential to explore the potential explanation for narrowing gender gap in mathematics achievement. In the present study, we emphasize the role of mathematics self-efficacy and mathematics anxiety in shaping mathematics performance. The samples of the research consisted of 1778 students from 10 primary schools in G City. Mathematics self-efficacy ，mathematics anxiety questionnaires and achievement tests were distributed among them. Results indicate that gender differences in mathematics self-efficacy, achievement were not significant, structural equation modeling results indicate mathematics self-efficacy can directly and indirectly influence mathematics achievement via the partial mediation effect of mathematics learning anxiety and assessment anxiety, and there is gender difference in the mathematics self-efficacy—mathematics learning anxiety — performance mediation model . The medication effect was 22.86% in male group while 37.16% in female group. Possible explanations and implications of the findings are discussed，the findings of this prospective study may be important in planning focused primary prevention school-based strategies

3 - 2232	A Study on the Beginning of 'Normal School' and the Meaning of '師範(Sabeom, Shifan, Sihaeun)' in Korea, China and Japan in the Late 19th Century	English

Author(s)	**Hyun-jung WOO,** Chungnam National University, South Korea **Soo-jung PARK,** Chungnam National University, South Korea **Xiaofei FANG**

Following the changes in the world's imperialistic attacks on the western part of the 19th century, East Asian countries such as Korea, China, and Japan were successively forced to open. Since then, these countries have made numerous changes in politics, diplomacy, and society. In the field of education, a new school was established in addition to the traditional educational system. In particular, one of the new school was established to foster teachers for the education of primary educational institutions. It was new attempt compared to system what excellent scholars take charge for the education of the young children in the past. Until that time, there was no separate educational institution for training of teacher in East Asia. What's more, this effort is also the same as the establishment of an institution of teachers education that uses the words '師範(Sabeom, Shīfàn, Sihaeun, from now on, it is unified with 'sabeom')' as the same name as Korea, China and Japan. The term 'Sabeom' has been used to describe the educational system that produces teachers in all three countries. There is also a controversy over its symbolism due to historical problems with Japan in Korea and China.

In this article, to examine why the word 'Sabeom' refers to teaching teacher training, with the establishment of 'Normal School' in the late 19th century. Through literature studies, it will analyze the meaning of 'Sabeom' in Korea, Japan, and China. The expected outcome is that the term 'Sabeom' refers to the 'role of teacher' in East Asia. Therefore, it is not considered that the meaning itself is negative, apart from

Japan`s imperial occupation. However, we need to review the training system of teachers in each country and review the various problems faced by East Asian countries in the Period of Switching Over to the Modern. Further, this education should be directed toward better reflect the nation's traditions and current, along with communicating with neighboring countries. The reason why this study looks at the origin of the 'Sabeom' is to reflect this point.

3 - 2278	The Relationship between Participatory・Caring School Climate　and Teacher's Job Satisfaction : A Comparison of Middle School between Korea and China Shanghai	English

Author(s) | **Xiaofei FANG,** Chungnam National University, South Korea
Soo-Jung PARK, Chungnam National University, South Korea

The purpose of this study is to analyze the relationship between participatory school climate, caring school climate and teacher's job satisfaction. For this purpose, 「OECD Teaching and Learning International Survey(TALIS) 2013」 of 2,621 middle school teachers' responses in Korea and 3,925 middle school teachers' responses in China Shanghai were used in the analysis. Data analysis was performed using the SPSS 22.0 and correlation analysis, multiple regression analysis carried out. In order to examine the influences of the background variables, the teachers' gender, age, teaching career experience and employment type were used as the control variables. The major results were as follows. First, there was a positive correlation among participatory school climate, caring school climate and teacher's job satisfaction in Korea and China Shanghai. Second, both the participatory school climate and caring school climate had significant positive effect on job satisfaction, the independent variable's explanatory power of China Shanghai was higher than Korea. As the result, this study empirically verified that more attention was needed on the participatory school climate and the caring school climate in order to improve the teacher's job satisfaction.

3 - 2316	Assessing Metacognitive Components on Virtual Simulation and Physical Experimentation Learning	English

Author(s) | **Hong-Syuan WANG,** Graduate Institute of Science Education, National Taiwan Normal University, Taiwan
Miao-Hsuan YEN, National Taiwan Normal University, Taiwan

The monitoring judgments play an important role in metacognition, and the ability to accurately judge the status of learning is a key component in self-regulated learning. Over the last few decades, the positive impact of virtual simulation (VS) and physical experimentation (PE) in the learning process has been documented. However, to date, there has been relatively little research conducted on the ability of monitoring judgments in VS and PE environments. The purpose of this study was to explore the ability of senior high school students' monitoring judgments on VS and PE learning. In the present study, we replaced the traditional ray model with the luminous ray model (LRM) to help students understand optical phenomena in image formation. A total of 106 students aged 15–16 were randomly divided into three groups: a control group (LRM only, n=33), VS+LRM (n=37), and PE+LRM (n=36). Data were collected from the Assessment of Monitoring Judgments scale and the Geometrical Optics Conceptual Test. The results showed that the two treatment groups have more accurate judgements on the status of learning on optical phenomenon than the control group, but there was no difference on the judgments of conceptual explanation among the three groups. This finding implies that the VS and PE were more beneficial to help students visualize optical phenomena, but they are equally effective regarding the learning of conceptual explanation.
Keywords: Metacognitive judgments, virtual simulation, physical experimentation

3 - 3340	幼兒園繪本教學中的體驗式學習研究	普通話

Author(s) | 胡馨允，香港教育大學，香港
常河，深圳市福田區機關第一幼兒園，中國

幼兒喜愛繪本，但是幼兒園的繪本教學以教師主導為主，幼兒的參與程度始終偏低。此研究旨在增強幼兒的主體角色，探索探索出適合幼兒的繪本體驗式教學模式，創設體驗式情境，構築幼兒直接經驗，增強幼兒閱讀動機。研究發現，需要根據幼兒的年齡和發展甄選適合的繪本，並針對幼兒對故事的興趣設計多種體驗式學習策略，例如情景體驗，遊戲體驗，肢體體驗，情緒體驗，探索體驗，動作體驗，問題體驗，藝術體驗等策略。通過繪本延伸活動促進幼兒反思，發展幼兒自主閱讀的能力。

3 - 3347	A study of 3rd graders' science learning on marine education in Taipei	English

Author(s) | **CHING-SAN LAI,** National Taipei University of Education, Taiwan

The major purpose of this study was to explore the learning outcomes on marine education for 3rd graders in Taipei. A quasi-experimental design with single group was used in this study. Students in experimental group (N=56) were given 8 weeks of marine education activities and a field trip at Tamsui River & Estuary Park in New Taipei city. Two research instruments were used in this study include a marine education achievement test, and an attitude of marine education scale. The results were undergone by t-test analysis. The results of this study include (1) the results of the marine education achievement test

were that students in the post-test got higher scores than in the pre-test (t = 14.21, p < .001); and (2) the results of the attitude of marine education scale were that students in the post-test got higher scores than in the pre-test (t = 4.28, p < .001).   Therefore it can be concluded that marine education activities and field trip is effective for 3rd graders' science learning in this study.

3 - 3352	Relationships between sense of place, conservation-conscious behaviours and visitors' satisfaction in Hong Kong UNESCO Global Geopark.	English
Author(s)	**Hin Kit LI,** The Education University of Hong Kong, Hong Kong	

This study investigated the factors affecting the sense of place of visitors of Hong Kong UNESCO Global Geopark, the relationship between sense of place and conservation conscious behaviours of visitors of Hong Kong UNESCO Global Geopark and the relationship between sense of place and visitors' satisfaction of Hong Kong UNESCO Global Geopark. Questionnaire surveys were adopted at Tung Ping Chau which is one of the geopark area in Hong Kong UNESCO Global Geopark and 163 questionnaires were collected. The results suggested that monthly salary was the only socio-economic factors that showed a significant result towards sense of place. Meanwhile, there was positive and significant relationship between sense of place and conservation conscious behaviour and positive and significant relationship between sense of place and visitors' satisfaction which showed that sense of place was the indicator and driving factor of conservation conscious behaviour and visitors' satisfaction. Moreover, it was discovered that there were two reasons suggesting the high mean of sense of place; two factors affecting the attitude of conservation conscious behaviour and three factors hindering the visitors' satisfaction. They were illustrated and explained in the study.

3 - 3365	"I Like Books:" Infants and Toddlers' Reading Responses in Nursery Centers	English
Author(s)	**Ming Fang HSIEH,** National Tsing Hua University, Taiwan	

The purpose of this study was to investigate the reading responses of infants and toddlers across different contexts in nursery centers. Research has shown that early reading experiences lead to a positive influence on children. However, adults may not consider it as worthwhile to read to infants and toddlers because they do not realize its importance and may react inappropriately to their emergent reading behaviors. Only few studies have focused on shared reading interactions of infants and toddlers with their mothers within family contexts. Since many infants and toddlers are looked after in nursery centers, it would be important to analyze how they respond to reading in a group setting of the child-care center.   The study adopted Sipe's (1999; 2007) framework for children's literacy education to explore the reading behavior of infants and toddlers. The study was conducted at two nurseries. The sample comprised 46 infants and toddlers and 6 caregivers. The methods of data collection included observation of various reading activities, including shared reading in a group, one-on-one reading and unstructured reading activities, as well as interviews with caregivers. The data obtained through observations and interviews were transcribed and analyzed.

The caregivers and the children's parents signed an informed consent form before the start of the study. There was no risk anticipated during the course of the study. The analysis revealed five types of reading responses exhibited by the infants and toddlers: (1) linguistic – verbally responding to reading, repeating vocabulary, and answering questions; (2) affective – concentrating on reading or requesting for repeated reading, leaning on books, and gazing at caregivers; (3) explosive –children under 18 months were observed manipulating books through their bodies or different movements like flipping, rotating, or tapping on books; (4) social – during unstructured reading context, children were seen interacting with peers or following the rules of reading, sitting properly, and choosing one book at a time; and (5) distracted responses – paying attention to something else instead of reading, walking around, and playing, which was usually observed during shared reading in a group. The study concluded that children's distraction and explosive reading behaviors may be a part of the process of their emergent reading behavior. As children develop, they demonstrate an increase in verbal responses, improved concentration, and better behavior. Adults should continue to provide appropriate reading opportunities beginning from infancy to nurture children's reading behaviors.

3 - 3369	Promoting Chinese students' positive achievement emotions: A systematic review of enhancement interventions in China	English
Author(s)	**Lan YANG,** The Education University of Hong Kong, Hong Kong	

A growing body of studies on emotions in education have found consistent evidence to support that students'   positive emotions in achievement situations are associated with school engagement, self-regulated learning, high academic achievement and other desirable learning outcomes. However, how can students'   positive emotions in achievement situations be effectively enhanced remains a challenging research question to address, no matter in Western or in Eastern educational contexts. This review aims to systematically examine these published intervention studies to enhance achievement emotions among Chinese students based on Pekrun's (2006) comprehensive conceptual framework of achievement emotions (i.e., the control-value model). Specifically, based on China Knowledge Resource integrated Database (CNKI), this study reviewed 225 journal articles on achievement emotions published by Chinese scholars starting from 2005 to 2017 (over 12 years). Educational levels ranged from primary to higher education. Intervention approaches to enhance achievement emotions together with other key variables involved in these studies were categorised as follows: Environment   Appraisal   Emotion   Learning   Achievement (a sequence of key variables in the control-value model). It is surprising to find that among the 225 publications on achievement emotions, solely six studies (around 3%) tested a narrow range of intervention approaches to enhance students'   achievement emotions. Specifically, intervention periods ranged from a single class to a semester. These intervention strategies involved in the reviewed intervention studies can be summarised as two major categories: designs of social environments and emotion-oriented regulation training. More detailed research designs of the six intervention studies and key findings are elaborated and discussed in relation to the antecedent and consequence variables conceptualised in the control-value model. Implications and limitations of these studies are also discussed to inform further improvements to cater for the needs of diverse learners in terms of developing positive emotions in various achievement situations.

3 - 3380	The effectiveness of the "Dreams Take Wing Patronage and Award Scheme" for children development.	English

Author(s)	**Kwok Ho Samuel TSOI,** the Education University of Hong Kong, Hong Kong **Tak Shing Joe CHAN,** The Chinese University of Hong Kong, Hong Kong **Man Yu Vera TANG,** The Chinese University of Hong Kong, Hong Kong **Chi Chiu CHEANG,** The Education University of Hong Kong, Hong Kong **Wai Chin Li,** The Education University of Hong Kong, Hong Kong

A service scheme 'Dreams Take Wing Patronage and Award Scheme' has been operated by the ELCHK- Tuen Mun Integrated Youth Service Centre since 2006. The scheme aims to alleviate the hardship of children in poverty by realizing their dreams. It provides them the opportunities for goal pursuit through studying courses, social groups and attending outreach activities. The scheme shows a good example of a cross-sectors collaboration between a NGO and commercial funder CPA Australia Greater China by providing financial, education and social support to the deprived children. The scheme has helped totally 117 children within these 10 years to settle their tuition fee on taking extra-curricular or supplementary studying courses. About 28 particpants is facilitated for achieving their dream annually. There is no limitation on the maximum year participation, yet the children have stayed in the scheme for around 2.3 years on average. The scheme has received the total amount HKD 717,844 from the donation. About 67% of the funding has been spent into the support of the tuition fees, whereas the remaining has been used for supporting the exposure trips and outdoor activities for all children living in the district. Each children participant is supported with the amount between HKD 250-400 per month dependent upon the course type. The most popular extra-curricular courses being supported are music (27%) and sports (31%) related. For collecting the in-depth comments, 24 children participants and parents have been invited to join individual interviews. They generally agreed to have positive implications acquired from the courses as supported by the scheme, including confidence enhancement, satisfaction and achievement, interest development or becoming more sociable. Yet parent respondents raised more in emotional relief, improvement in health and relationship with parents from their observation. However some remarkable comments are also noteworthy, e.g. aimless or lost thought in some teenagers, insufficient subsidization, emotional disturbance and course changing phenomenon. NGO realizes many potentials and challenges of the scheme. This review report thus aims to provide the organizer significant insights and supportive evidences into the improvement and future planning of the scheme for helping more deprived children in further.

HKERA Hong Kong School Education Forum 3 論壇 3

13:00-14:30	多維向度支援融合教育發展 主持人：香港教育大學　冼權鋒教授	D2-LP-05
	主題：校本支援：推動融合教育的良藥或有效催化劑? 香港教育大學　蘇建群先生　　**主題：香港特殊教育的經驗如何提升中國特殊教育師資培訓** 香港教育大學　潘頌兒博士	
	主題：職前教師特教能力的導引模式及策略 香港教育大學　林鎮威先生　　**主題：我的老師是「機械人」：智能機械人教育方案項目匯報** 香港教育大學　呂梓良先生	
	簡介： 香港的融合教育發展，自 1997 年融合教育計畫開展至今，已進行達二十年。融合生的數目，至今也逐漸朝向四萬的數字。政府主要是透過融合教育在職培訓及校本支持，讓大部份教師瞭解融合教育的要旨，認識政府提供的資源及支持措施。香港教育大學特殊學習需要與融合教育中心致力推動香港的特殊教育工作及融合教育發展。本	

| 論壇邀請資深特殊教育培訓導師，就近年的工作項目，如準教師特教水準的裝備、主流學校教師的校本支援、特殊學校教學新策略、中國特殊教育培訓實踐，從不同的角度剖析各方面成果及發展需要。 |

Parallel Session 3.3	**13:00-14:30**
HKERA International Conference Paper Presentation	**13:00-14:30**

Language and Literacy	D3-G-09

3.3A - 1 - 2211	高中学生古诗词阅读能力表现研究	普通話

Author(s)　　**钱荃,** 北京师范大学, 中國

古诗词是中国传统文化的重要组成部分，古诗词阅读能力是大陆各种学业水平测试及中高考均包含的内容。本研究采用定性与定量研究法对 156 名高中学生古诗词阅读的作答表现展开分析。研究结果表明，高中学生古诗词阅读高水平人数偏低，学生对完整古诗词的识记能力、对多首诗词的整合能力偏低；古诗词鉴赏方法积累不足，古诗词评价表述精准度不佳。并基于能力表现，讨论了提高高中学生古诗词阅读能力的些许教学策略。

Language and Literacy	D3-G-09

3.3A - 2 - 2248	以 Bernstein 教育機制中官方再脈絡化理論評析　　閱讀素養論述－以 PIRLS(提升國際閱讀素養研究)為例	普通話

Author(s)　　**戴淑芬,** 臺灣師範大學, 台灣

摘要
一、研究背景
　　近年來台灣教育政策的風向球改變頻繁，因全球化、經濟知識需求而有更多元的權力關係在影響著台灣教育實踐。其中隸屬於 UNESCO 教育研究所下國際教育成就評估協會（The International Association for the Evaluation of Educational Achievement，IEA），其任務為教育政策和實務的比較研究，專注於大規模教育成就的跨國比較的獨立研究單位。IEA 的主要工作是研究學生在基本學科（數學、科學與閱讀）上的表現。其中 TIMSS（Trends in Mathematics and Science Study）與 PIRLS（Progress in International Reading Literacy Study）兩大測驗，透過廣泛的主題與學科相關研究及報導，提供對於個別國家以及國際間的教育歷程有較深的瞭解。長期周期性的研究讓各國有機會觀察學生在數學、科學與閱讀教育成就上的進展；同時也能夠監控教育政策實施後發生的變化及找出與改革工作有關的新議題(柯華葳，2012)，因此國際性組織所舉行的全球性評比所帶領的風潮，正引領著台灣教育改革的進行。
二、研究目的
　　台灣教學現場的語文教學論述中，從以往注重古文背誦記憶暨復興中華的意識逐漸轉變為重視台灣本土的文學意識，然近年來轉為強調全球化、國際化，以外來文學的小說、繪本為學習主流。原語文學習能力的要求為背誦、精緻書寫、詞義了解等轉變為所謂的閱讀素養能力，其能力為直接提取(focus on and retrieve explicitly stated information) 、直接推論(make straightforward inferences)、詮釋整合(interpret and integrate ideas and information)、比較評估(examine and evaluate content, language, and textual elements)求以符合國際學習成就評比所要評比的能力。
　　Young 提出「課程乃是不同社會脈絡下組織而成的知識」，統治階級規定哪些東西可以做為知識？各種知識如何為不同的群體所接受？不同知識之間和能夠獲得這些知識並使它們成為有用的各種人之間可能的關聯是什麼？把這些問題視為出發點，即可以對課程社會學的問題更加清楚及了解。Bernstein 提出「教學實踐是一種文化的載體」(a cultural relay)，一種人類作為文化生產和再製獨特的機制。在教育關係中的傳遞者和習得者之間，不論在實質上及內在上就是一個不對等的關係，然這不對等的關係，卻利用各種的策略技巧加以掩飾偽裝來隱藏。如何建構教學論述透過教育機制來改變原先的教育實踐，創造出教育的想像主體呢?故本文欲運 Bernstein 教育機制中再脈絡化理論分析、洞察台灣教育的閱讀素養論述在官方再脈絡化場域的實踐過程，進而對閱讀素養論述的知識形象加以重新思考。
二、研究方法
　　研究者採取文本分析(textual analysis)的方法，從 Bernstein 教育機制中官方再脈絡化理論檢視閱讀素養論述之官方教育再脈絡化現象，檢視官方教育單位如何建構教學論述推行於教學機制中，改變原先的教育實踐?
三、研究結果
　　「閱讀素養」教學論述重新詮釋教育的「架構」，透過「再脈絡化規則」將「閱讀素養」之教學論述形塑於台灣現今的教育環境中，成為教育主流。長久以來，臺灣一直都有考試引導教學的討論，考試的確會影響教學，考試是檢測學習的評量工具，但這工具會對學生產生正面的影響力抑或成為打擊學生的挫折。然「閱讀理解素養」教育論述成

為官方教學文本，評鑑內容將與之有關，加上學測、會考後果牽涉學生升學結果，因此「閱讀素養」教學論述將對原先的教導論述產生了巨大的改變。

四、總結

國際評比皆提出評比基準 （benchmark），以基準描述成績優劣且這些基準可以用來檢查績效與責任 （accountability），近年來評比結果為各國政策制定者所重視。這其中還隱含一信念，就是評比結果展示各國人力在不同領域的狀況。各參與國將調查結果作為改善教育環境、教學及促進學生學習能力的參考（ 柯華葳，2012）。國家政府主導教育政策，這些政策的背後實以考量資本主義經濟市場的需求而制定的，為了趕上全球化(應該是全球資本主義化)，教育的趨勢改變，評量的指標改變，教學現場改變，因此教學法上必須強調閱讀理解、合作學習等，培養出世界組織所建構出的教育想像主體。

Language and Literacy	D3-G-09

3.3A - 3 - 3356	建構「敘事寫人」類文言文閱讀教學模組——以〈張釋之執法〉為例	普通話

Author(s) 　　**李鍑倫，**國立臺灣師範大學課程與教學研究所, 台灣

近年來各國大力推動閱讀，因此如何針對文本特性，建構一套步驟清楚、容易操作，又能提升閱讀成效的教學策略，才能帶給學生最實質的幫助。本研究從臺灣國中國文課本中的文言文篇目〈張釋之執法〉入手，選擇「自然斷句」、「圈選難點」、「還原省略」、「釐清稱代」、「換句話說」、「釐清難句」、「推論文意」、「摘要重點」及「分析評論」九個核心步驟，建立文言文「敘事寫人」主題的教學模組。預計透過行動研究法，評估模組實施之成效，期使學生能逐漸將這些步驟內化，進而靈活運用在其他同類型文言文篇章的閱讀上，達成有效的學習遷移。

Education Leadership and Management	D2-LP-07

3.3B - 1 - 1039	Building inclusive education from the ground up --- an insider's account of a school's transformation journey in a secondary school in Hong Kong	English

Author(s) 　　**Kai Cheung Franky POON,** HKRSS Tai Po Secondary School, Hong Kong

This presentation chronicles a journey of a school administrator in moving a school towards inclusive culture and practices. Through a clear strategic plan spanned nearly 10 years, the school has successfully initiated major changes in its curriculum, pedagogy and assessment with an aim to differentiate the learning process and outcomes meaningfully for students with diverse needs.

It is presented from an insider's perspective of the school's Vice Principal who recounts how the school moved away from practices of teaching in isolation and embraced a culture based on sharing and collaboration among teachers to accommodate the needs of an increasing number of students with learning difficulties. The methodology of this investigation is a narrative inquiry adopting insider's perspective(Chavez, 2008). As the Vice Principal of the case school, the presenter is able to reflect on his own practices through the use of autoethnography which allows him to place himself within a social context in a form of self-narrative (Reed-Danahay, 1997).

With the consistent and persistent efforts of teachers in the case school, the school has successfully built a strong inclusive culture and developed practices which engage diverse learners through a whole school approach. The transformation process may provide inspirations to other schools faced with similar changes in Hong Kong and elsewhere.

Education Leadership and Management	D2-LP-07

3.3B - 2 - 3362	Teachers' Role in School Bullying Prevention: the Case of Lithuania and Norway	English

Author(s) 　　**Dziuginta BARALDSNES,** Norway

School bullying is understood to be a complex and a systemic problem and has a negative influence on the safety of the entire school environment. Many researchers (Olweus, 1993, 2001; Hawley and Williford, 2015) have agreed upon that teachers may be one of the most valuable, yet underutilized resources in school bullying prevention efforts. Teacher's awareness, intervention, and attitudes towards pupils involved in bullying are recon as important factors in reducing school bullying. However, as central as teachers are to school environment, they may be limited in their ability to impact bullying (Stassen Berger, 2007). Moreover, teachers may lack knowledge about how to effectively respond when they observe bullying (Rose, Monda-Amaya, Espelage, 2011) and their presents alone does not guarantee a pupil's safety in school (Hawley and Williford, 2015).

Therefore, the aim of the study is to elaborate teachers' role in bullying among pupils prevention in Lithuanian and Norwegian schools.

 It has been applied non-experimental, cross-sectional, explanatory correlational research. The study has been carried out using a quantitative survey approach, where data has been be collected through a standardized questionnaire. The sample consists of teachers of the 99 Lithuanian and 85 Norwegian schools. The results showed, that both Lithuanian and Norwegian teachers works more actively on the individual and class level of school bullying prevention, but they are less active in their efforts to prevention school bullying on the school level.

Education Leadership and Management	D2-LP-07

3.3B - 3 - 2194	A Model for Evaluation of Rural Schools in Developing Countries		English

| **Author(s)** | **Pedro SANCHEZ,** Universidad Autonoma de Yucatan, Mexico
Liz HOLLINGWORTH, The University of Iowa, United States |

Rural schools in developing countries present a unique opportunity to understand the factors required to create a successful learning environment for students with a specific set of challenges. This paper proposes a developmental model for evaluating rural schools, constructed with data derived from evaluation and research projects carried out in Yucatan, Mexico.   In short, the model assumes that rural schools should provide a comprehensive set of services and support for a socially vulnerable population.   Thus, this is a developmental model of evaluation that considers the school as a holistic unit, including the quality and length of educational services, the social supports, the school infrastructure, and the availability of comprehensive services before evaluating learning and curriculum.   Sustainability, a key element in the model, is examined through: school infrastructure, constancy and overall provision of services, and the degree of students' readiness to learn and opportunities offered. The model can place a school along a specific point of a continuum of a developmental process, providing clear directions and specific goals for school leaders to use to grow and advance the rural school toward a fully comprehensive center of learning and social change.

Higher and Teacher Education — D3-G-03

3.3C - 1 - 2273	Recent Developments in Teacher Education Programmes in Singapore		English

| **Author(s)** | **Kam Ming LIM,** National Institute of Education, Singapore, Singapore |

The presentation will describe some of the recent key developments in the teacher education programmes that are conducted by the National Institute of Education, Singapore.   One key change was the enhancement of the Postgraduate Diploma in Education (PGDE).

The duration of the PGDE programmes was extended from 12 months to 16 months. The enhanced PGDE will strengthen the preparation of teachers through a number of key factors:

- An additional practicum stint in schools to increase structured practice
- Structural interweaving between NIE courses and the two practicum stints: theory-teaching assistantship-theory-final practicum
- Additional curriculum studies courses to deepen pedagogical knowledge and skills
- Stronger integration of pedagogical knowledge and skills through systematic theory-practice link tasks/assignments
- Deepen student teachers' understanding of learners and learning
- Greater coverage of issues critical for enhancing learning and teaching such as disciplinary   thinking, formative assessment, differential instruction and supporting low progress learners
- Additional coverage of how teachers can better work with parents and students
- Additional course on Phonetics to strengthen student teachers' communication in English
- Additional course on Singapore Studies to help student teachers better situate their teaching philosophy and practice in the Singapore context

This presentation will discuss the key processes involved in the development of the revised programme and implementation.

Higher and Teacher Education — D3-G-03

3.3C - 2 - 2298	Understanding How Theoretical Learning Frameworks Connect to Engineering Technology Workforce Development Education		English

| **Author(s)** | **Arthur C. EVANS III,** Clark Atlanta University, United States |

Among the literature that exist there are not many theoretically supported frameworks that exist around the workforce development education in the engineering technology field.

Some studies have laid out the case for the use of certain theories like Situated Learning Theory, Andragogy Theory and Expectancy and Value Theory within engineering education areas, which has mainly borrowed theories from the other foundational science and mathematics areas. However, some of these theories are absent of the applied component that many engineering technology workforce development education programs must employ, especially as it relates to the learning framework included in workforce development education. Cognitive approaches have been used in many traditional learning constructs related to engineering education. This paper will examine some of these theories and how they have been used or can be applied to learning frameworks for workforce development education in engineering technology programs. Furthermore, the study will also investigate how some of these theories result in student success within this same learning context.

Secondary School Education — D3-G-03

3.3C - 3 - 2277	Promoting STEM education in senior secondary schools in Hong Kong through STEM Olympiad		English

| **Author(s)** | **Yanjie SONG,** The Education University of Hong Kong, Hong Kong |

Yiu Fai TSANG, The Education University of Hong Kong, Hong Kong
Yau Yuen YEUNG, The Education University of Hong Kong, Hong Kong

Despite STEM education is highly advocated in Hong Kong schools, teachers and students are still lack of the relevant personal experience and practical training, especially in an informal learning environment. This paper reports on a new event of STEM Olympiad 2016 organized by The Education University of Hong Kong and supported by the Education Bureau of the HKSAR Government and other institutions, aiming at providing senior secondary school students with informal learning opportunities to deepen their understanding of STEM and reflecting on their interest towards pursuing further study in STEM subjects and career; and creating an atmosphere conducive to the teaching of STEM in secondary schools and heighten teachers' and students' awareness of the importance of STEM education. Students participating in the STEM Olympiad completed a "Knowledge Challenge" on both individual and team bases, and competed in the "Innovations in Practice Challenge" to solve the local wastewater treatment problems. Each team had to design, assemble and test a treatment system prototype to meet the design criteria and to demonstrate their knowledge and skills in STEM without prior training and preparation. Before the final challenge, a mass expert lecture was delivered by an experienced engineer to enrich students' knowledge in the wastewater treatment and its underlying scientific principles. A series of 11 parallel education forum and workshops were also held to raise participants' awareness of the importance of STEM education as attended by hundreds of teachers and students. The competition yielded a total of 36 gold, silver and bronze medals awarded to the competition winners. We conducted student and teacher questionnaire survey and interviews after the competition to collect data on their perceptions and opinions of the event. As expected, the feedback is generally positive in many aspects. In particular, the students widened their vision in STEM and the teachers also obtained a holistic view about how to conduct STEM activities in schools. There were also some negative comments and constructive suggestions from students and teachers and they help us improve the future organization of the event with a focus to achieve its specific aims more effectively.

Secondary School Education		D2-LP-13
3.3I - 1 - 2244	八年级学生语文阅读水平现状及影响因素研究	普通話

Author(s)　郑国民，北京师范大学，中國
任明满，北京师范大学，中國
赵利曼，北京师范大学，中國
钱荃，北京师范大学，中國

依据《义务教育语文课程标准（2011 年版）》，编制了八年级语文试题，对某地区 10607 名八年级学生进行了学业水平的测试，同时对参加测试的学生进行了问卷调查。本研究力图用实证的方式分析该地八年级学生语文阅读水平的现状，通过多元线性回归探讨影响学生阅读水平的因素。研究结果显示：（1）八年级学生语文阅读水平具有较高的达标率，达标率为 81%，但城市学校学生语文阅读水平达标情况明显优于县镇、农村学校学生，非留守儿童达标情况普遍优于农村留守儿童。女生达标情况优于男生。（2）阅读策略、自我效能、学习兴趣、师生关系对学生阅读成绩都会产生影响。其中，自我效能、阅读策略的影响更大。（3）学习兴趣对阅读成绩存在显著调节作用。学习兴趣低的学生的阅读成绩更容易受到阅读策略的影响。

Secondary School Education		D2-LP-13
3.3I - 2 - 1115	台灣高中生睡眠型態解密	普通話

Author(s)　毛惠瑩，國立成功大學，台灣
楊雅婷，國立成功大學，台灣
賴奕廷，國立成功大學，台灣

睡眠型態與身體的日夜節律有密不可分的關係，不同的日夜節律型態可能伴隨著不同程度的睡眠問題，進而導致在一般生活或是學科成就表現上的影響，但至今仍鮮少有針對青少年日夜節律的研究。基於此，本研究目的在於，調查台灣高中職生在不同日夜節律型態上的分布。研究對象為高中職生，以立意抽樣法，針對台灣地區高中學生共計 536 位，進行問卷調查。研究結果顯示：高中生的日夜節律型態分布為，夜貓型最高，其次為蜂鳥型，少數為白日型態。未來研究將進一步設計睡眠健康課程。

Secondary School Education		D2-LP-13
3.3I - 3 - 3386	乡村遇上未来学习空间——乡村初中图书馆创建未来学习空间的案例分析	普通話

Author(s)　廖文, 华南师范大学, 中國

形态：未来学习空间——打破传统的"藏书—借阅""静态阅读""模式阅读"等方式，重建阅读空间，结合乡村学校实际，打造新型态学校未来学习空间。

内核：提升阅读效能——关注"阅读空间"的功能性设计，创建开放互动型的"群体阅读"、"个体阅读"空间，优化功能布局、信息共享、多屏互动及环境提升阅读体验，创造促进学生沟通与交流的图书馆空间，优化阅读行为与培养信息搜集、理解、应用能力，促进图书馆成为学生"主动学习空间"、"协作学习空间"。

成果：师生共赢——为幸福而教，为幸福而学，因"打开视界"而出彩。

HKERA International Conference Workshop

<div align="right">D3-G-05</div>

3.3H - 1066	Engage 'n' Educate - Engaging learning approaches for at-risk and low-income students	English

| Author(s) | **Zafirah Haron,** Literacy Initiative For Equity (LIFE) SG, Singapore
Hana (Nur Farhanah) Saemon, Literacy Initiative For Equity (LIFE) SG, Singapore
Rasyidah Abu, Literacy Initiative For Equity (LIFE) SG, Singapore
Syaza Irfani Shafie, Literacy Initiative For Equity (LIFE) SG, Singapore
Aydan Aiman Lee, Literacy Initiative For Equity (LIFE) SG, Singapore |

20 pre-school and primary school students from low-income and at-risk households have been introduced to various approaches such as active learning, cooperative learning, and self-evaluation. The aim is to help the children have a positive attitude towards education, and learn ways to channel negative emotions and energy in a healthy and fun manner. The focus is on engaging essential needs to develop cognitive abilities and social skills through healthy and fun activities.

For control purposes, the programme started on a traditional teacher-centred approach before moving on to other approaches. The activities are carefully thought out to complement the kindergarten and primary school curriculum. Students' progress is observed and recorded continuously. The results have been positive, with significant improvements in the children's behaviours, attitudes, literacy skills, and social-emotional competencies reported.

Now in Phase 6, a new programme called Engage 'n' Educate has been created to stimulate interest of the children in various fields such as Science, Technology, Art, and many more. The activities are designed to develop three key areas: Self-directed Learning and Initiative, Presentation and Social Skills, Creativity and Innovation. Some of the more significant results of this phase are: increased engagement and participation of all students; observed development of leadership skills in older students; improved presentation skills especially in younger and/or "shy" students.

LIFE will continue finding ways to help children who are usually left behind have opportunities and achieve a fair chance at success. This workshop hopes to raise awareness and inspire other educators to do the same.

WERA Focal Meeting Paper Presentation

<div align="right">13:00-14:30</div>

Reference Code	Presentation Title	Abstract	Presenter(s) / Author(s)
World-Wide Perspective on Resilience in Challenging Educational Settings			**D2-LP-03**
3.3D	**Chair: George HEAD** - University of Glasgow, Scotland, george.head@glasgow.ac.uk		
3.3D - 1 - 172	Preventive resources and perceived stress in internship – a comparison of two samples of social work students in Germany	This study used the Preventive Resources Inventory (PRI) to survey two samples of social work students in Germany on the impact of preventive coping resources on perceived stress (measured by the Perceived Stress Scale (PSS) and stress symptoms (using the Stress Symptom Checklist (SCI). The following research questions were answered in this study, 1a) How stressed do social work students feel and b) what kind of symptoms do they suffer from? 2) Is perceived stress related to the appearance of stress symptoms? 3) Is perceived stress impacted by preventive resources? 4) What coping strategies do students use and do they influence the experience of stress? Research question 1a and b were answered by descriptive statistics. In order to address research question 2 and 3 hierarchical	**Andrea SCHWANZER**, Ostfalia University, Germany, a.schwanzer@ostfalia.de; **Annette ULLRICH,** DHBW Stuttgart, Germany, annette.ullrich@dhbw-stuttgart.de; **Cornelia KRÜGER,** Ostfalia University, Germany; **Angelina WEIß**, Ostfalia University, Germany

		linear regression was used. For research question 4 the means between the subscales adaptive and maladaptive strategies were compared and hierarchical linear regression was conducted. Results indicated that students scored above average on PSS and higher stress levels were found for students in later years. The PRI subscale Maintaining Perspective was positively related to perceived stress and stress symptoms. Students showed more adaptive than maladaptive coping strategies. The impact of positive coping strategies on perceived stress was not significant; however, maladaptive coping strategies were significantly positively related with perceived stress. Implications for practice include efforts to strengthen social work students' positive coping skills at the university level. More research is needed to investigate cultural differences and similarities in the relationships between these constructs.	
3.3D - 2 - 208	A comparison between Western and Indigenous South African women's' pathways to Appraisal	This research studies indigenous pathways to appraisal (as part of the greater resilience process). The relevance of this study lies in the evident gap in scientific literature (and scientific investigation) on indigenous people and their environments. This paper explores the perceptions of rural South African women's appraisal of risk as a precursor to adaptive coping and resilience that may lead to well-being. Using a comparative case study design, the Indigenous Pathways to Resilience (IPR) Project conveniently selected two high risk and high need rural communities, participants were stratified according to age and gender to investigate embedded non-western worldviews around resilience. Participatory maps and visual diagrams were used as part of Participatory Reflection and Action methods to elicit understandings and meanings that participants associate with their experiences and environment to qualitatively analyse findings. As this study is in the final stages of completion, findings are not conclusive. However, regardless of the outcomes of this study, findings will contribute to the limited scientific knowledge on indigenous people and their environments.	**Safia MOHAMED**, University of Pretoria, South Africa, safia.mohamed@up.ac.za
3.3D - 3 - 44	Effective educational strategies of resilient schools	The research uses the framework of resiliency to examine schools working in challenging socio-economic conditions that show higher than expected educational results. A unique set of data exists within the Russian "National monitoring of education markets and organisations" programme. For the first time, the authors supplement the economic indicators of school performance with socio-economic contextual factors. A contextualisation model was applied to distinguish resilient schools using and the socio-economic characteristics for each school. The typical strategies of resilient schools are: creating a culture of high expectations for staff and students, evaluation objectivity, individual support and stimulation of educational activity of pupils. The obtained information can be used at administrative decision-making, based on data and distributions of resources due to operating conditions of schools. As besides actually educational tasks the surveyed schools solve some more problems of socialization of pupils from dysfunctional families and restoration of their psychological health. Often it means the compensating acceptance of parts of parental functions. Results of a research can be used for development of programs of preparation and professional	**Marina PINSKAYA,** National Research University, Russia, m-pinskaya@yandex.ru; **Sergey KOSARETSKY,** National Research University, Russia, skmsk@mail.ru; **Tatiana HAVENSON,** National Research University, Russia, xtanya@gmail.com

		development of directors of schools, and also programs of development of regional and municipal systems of the general education.	

Internationalisation of Teacher Education			D3-LP-01
3.3E	Chair: Ruth AHN, California State Polytechnic University, USA, ruthahn@cpp.edu		
3.3E - 1 - 187	Modeling and Developing 21st Century Skills with Preservice Teachers	The need to develop competencies in the 21st Century Skills (i.e., creativity, critical thinking, communication, collaboration, and information, media, and technology skills) has been recognized by education, business, and policy leaders (National Governors Association Center for Best Practices, Council of Chief State School Officers, 2010; Partnership for 21st Century Skills, 2016). While research exists on each of the 21st Century Skills in isolation or in pairs, a scarcity of research exists on the process of explicitly facilitating them with preservice teachers (Kagle, 2014; Kokotsaki, 2011; McDonald & Kahn, 2014; Thieman, 2008). In addition, few studies detail how to explicitly facilitate this process (Schleicher, 2012). Using a mixed methods approach, which included pre- and post-surveys and a focus group, the current research explored how faculty developed and modeled those skills within one university in three teacher education programs (Elementary, Secondary, and Special Education). Results indicate that teacher educators need to be robust models of the simultaneous integration of 21st Century Skills to facilitate the development of these skills. This research aims to address a gap in the teacher education literature by defining the 21st Century Skills in the context of teacher education and building a model for the development of these skills in preservice teachers.	**Jacquelyn URBANI,** Dominican University of California, USA, jacquelyn.urbani@dominican.edu; **Shadi ROSHANDEL,** Dominican University of California, USA, shadi.roshandel@dominican.edu; **Rosemarie MICHAELS,** Dominican University of California, USA, rosemarie.michaels@dominican.edu; **Elizabeth TRUESDELL,** Dominican University of California, elizabeth.truesdell@dominican.edu
3.3E - 2 - 85	Internationalization in Teacher Education Through the Use of Culturally Responsive Teaching	This study illuminates how faculty members at a Historically Black College University used Culturally Responsive Teaching (CRT) as a framework to expand notions of internationalization within college classrooms with international students: 1) help ease the transition that international students may face when embarking on an international experience and 2) ensure that in-class learning capitalizes on students' cultural exposures to promote engagement and inclusiveness. We examines how teaching and learning can be enacted in ways that promote internationalization and highlight activities that support an international curriculum and expand professors' capacity to enact teaching practices that are responsive to students' cultural needs.	**Thurman BRIDGES,** Morgan State University, USA, thurman.bridges@morgan.edu; **Simone GIBSON**, Morgan State University, USA, simone.gibson@morgan.edu; **Christian ANDERSON**, Morgan State University, USA, christian.anderson@morgan.edu

WERA Focal Meeting Symposium			
Reference Code	Presentation Title	Presenter(s) / Author(s)	Chair/Discussant(s)
Diversity in Education - global challenges, local perspectives – Part 2: Starting Points for Innovation and Reform			D2-LP-10
3.3F - 29	Educational experiences and Spiritual Well-Being Among Chinese Immigrant and South Asian Minority Youth in Hong Kong	**Celeste YUEN,** The Education University of Hong Kong, Hong Kong, cymyuen@eduhk.hk	Chair: **Ingrid Gogolin,** Universität Hamburg, Germany, Gogolin@uni-hamburg.de
	Non-monetary returns to education: The acquisition of 'dominant culture' and consequences for acculturative behavior of adult migrants in Germany	**Andreas CATTIN**, Universität Hamburg, Germany, Andreas.Cattin@uni-hamburg.de	Discussant:

| | Development of critical thinking skills in multilingual settings as a strategy for educational attainment | **Funke OMIDIRE,** University of Pretoria, South Africa, funke.omidire@up.ac.za | **Mustafa Yunus ERYAMAN**, Canakkale Onsekiz Mart University, Turkey, eryaman@comu.edu.tr |
| | Teachers' professional skills for education in a diverse society: a German innovation project. | **Tobias SCHROEDLER,** Universität Hamburg, Germany, Tobias.Schroedler@uni-hamburg.de | |

Abstract

Over the past fifteen years, the number of international migrants worldwide has continued to grow rapidly: The number has reached 244 million in 2015, a 41 per cent increase compared to 2000. Almost two thirds of all international migrants live in Europe or Asia (UN 2016). Sources of migration vary considerably: While conflicts and crises are causes of forced migration (refugees), global mobility enables voluntary migrants, including rising numbers of international students, to work or study in other countries. In addition, internal migration from rural to urban areas plays a vital role in population redistribution in the global South (Rees et al. 2016). The effects of migration are concentrated in urban areas: Especially global cities like London, New York, Hong Kong, or Berlin and Hamburg (Germany's two biggest cities) are major draws for migrants (WMR 2015). In Hamburg, Germany, every second child is born in a migrant family. A large proportion of the world's citizens is growing up with more than one language. Migration stimulates the increase of social, cultural, linguistic diversity in today's societies. Diversity and change are unstoppable realities of the 21st century in urban areas worldwide (Benson, Chik, Moloney i.p.).

From an economic point of view, migration is necessary and often welcome. Migrants boost the working age population, they contribute more in taxes and social contributions than they receive in benefits, and they fill important niches in fast-growing as well as declining sectors of the economy (OECD 2014). At the same time, migrants remain among the most vulnerable members of societies – even in liberal democracies with relatively strong economies (Piller 2016). They are overrepresented in the unemployment statistics, they receive lower wages than nationals. Students with a migrant background are characterized by significantly lower levels of educational performance and attainment than their non-immigrant peers in most OECD countries (cf. Klieme et al. 2010). A migration-related diversification of the population obviously brings with it both: opportunities and challenges to education systems worldwide.

In order for the existing and growing diversity to succeed and to enrich our societies, it is necessary to look at and understand different factors that have shown to be of importance when it comes to the educational success and well-being of migrants and their children. In our symposium, we will explore this globally relevant topic from different perspectives and, based on empirical research, try to provide answers to the following questions: Which are the relevant features of diversity that facilitate or inhibit educational success, and under which conditions do such features unfold positive or negative effects? Which role do students' multilingual language skills play for their educational attainment; under which conditions is multilingualism an asset/ a handicap? In which way can teachers and teacher education contribute to equal opportunities for all students irrespective of their ethnic origin, language and socio-economic background? How can pre-service teachers be prepared to deal with the growing heterogeneity of their prospective students, in order for them to succeed?

The proposed symposium aims to initiate a discourse on different regional or local perspectives concerning the signified global challenges. All contributions are based on empirical data which reveal features of diversity that are relevant for educational attainment in a regional or local context. The joint discussion will aim to uncover the general principles which are likely to cause educational disadvantage in a global perspective. Based on this analysis, the participants will identify starting points for innovation and reform of contemporary education systems.

The proposed symposium will be based on 8 contributions, thus needing two time slots in the program of the WERA Focal Meeting. Part 1 of the symposium will be focussed on the identification and explanation of dimensions and features of diversity in different regional contexts. Part 2 of the symposium will present different approaches to deal with diversity and their potential effects on educational attainment and wellbeing – with an outlook on starting points for educational innovation and reform.

Intersectionality in Pre-Service And Graduate Teacher Education: Fostering critical lenses in transnational contexts*			**D3-LP-07**
3.3G - 9	Challenging Conformity and Navigating Intersectionality in Teacher Education	**Clea SCHMIDT**, University of Manitoba, Canada, clea.schmidt@umanitoba.ca	**Chair & Discussant:** **Clea SCHMIDT**, University of Manitoba, Canada, clea.schmidt@umanitoba.ca
	Duoethnography in Teacher Education – A Pathway to the Development of Critical Perspectives	**Antoinette GAGNÉ,** University of Toronto, Canada, antoinette.gagne@utoronto.ca	
	Infusing criticality into teacher education through critical action research	**Sreemali HERATH,** Open University of Sri Lanka, Sri Lanka, sreemalih@yahoo.com	
	Language biographies/portraits: Studying power and emotion in tandem for heightened critical praxis	**Sunny Man Chu LAU,** Bishop's University, Canada, sunnylaumanchu@gmail.com	
Abstract			

Introduction and background

Transnational migration and the internationalization of education at all levels have helped diversify classrooms in all areas of language, culture, ethnicity, socioeconomic status, sexual orientation, religion, age, gender, disability and so on. Creating equitable teaching and learning environments for minoritized students is perhaps the greatest challenge for classroom teachers in today's complex world. As renowned critical literacy scholar Allan Luke and his colleagues have emphasized, The most durable and robust problem facing education research since the mid–20th century is the persistence of educational inequality. Under new economic, technological, and cultural conditions, increasingly diverse populations and communities are facing persistent and emergent patterns of educational inclusion and exclusion. How we name and describe, document and understand educational equality and inequality, inclusion and exclusion, centrality and marginality, then, is the issue facing educational systems in economically hard times (Luke, Green, & Kelly, 2010, p. vii, italics in original). Therefore, actively adopting critical approaches is essential for interrogating classroom practices that fuel inequitable educational ideologies and practices. Many critical scholars urge for critical engagements with pre- and in-service teachers in sociopolitical issues to examine how (neo)colonial legacies and neoliberal discourses of globalization shape policies, teaching practices, and identities that (re)produce hierarchies and capitalistic orientations towards education (e.g., Canagarajah, 1999; Lin & Luke, 2006; Pennycook, 2001).

Objectives

Pertaining to this goal, the four papers in this symposium draw on various critical theories (including critical pedagogy and feminist theories of emotional engagement) and methodologies (including duoethnography, visual ethnography, autoethnography, critical action research, and language portraits) to examine how pedagogical practices and wider conditions of teaching and teacher education are shaped by intersecting forces and values relating to aspects such as race, gender, and socio- economic, historical and political conditions (Benesch, 2012; Motha & Lin, 2014).

Significance

In particular, the theoretical lens of intersectionality offers a useful overarching frame to consider the findings across the various studies, conducted in three different regions of Canada and in Sri Lanka, all in teacher education contexts characterized by a wide-ranging diversity of student and teacher populations.   Developed by Crenshaw (1991), intersectionality recognizes the heterogeneity of different groups and examines how certain groups are silenced from and marginalized by dominant political debates. Although intersectionality has generated fruitful debates in social and political theory, its implications for the field of social justice in education are still emerging, and this symposium furthers needed insight into the relevance of intersectionality for educational research. This symposium aligns with the WERA IRN on Intersectionality, Methodologies, and Knowledge Mobilization in Research for Social Justice in Education (co-convened by the symposium organizer Clea Schmidt). Efforts towards socially just education often struggle for legitimacy with many equity initiatives operating in relative isolation (Trifonas, 2003), indicating a need to examine the intersectionality of such issues to garner support and build momentum (Apple, 2008). Compounding the complexity of advancing a social justice agenda is the pressing need for appropriate methodologies that speak with rather than for participants (Griffiths, 1998), and knowledge mobilization that contributes positively to the communities involved.

*Part of the WERA International Research Network (IRN): 'Intersectionality, Methodologies, and Knowledge Mobilization in Research for Social Justice in Education'

HKERA Hong Kong School Education Forum 4 論壇 4		
14:30-16:00	**國民教育** **主持人：**香港教育大學　　　趙永佳教授 **主題：國民教育的本質與在香港的實踐**　　**主題：在高度分化情境下的國民身份認同與國** 香港中文大學　王淑英協理副校長　　　　**民教育** 香港教育大學　梁恩榮博士 **主題：如何透過正規及非正規課程在學校推動**　**主題：學校國民教育：一所中學的實踐與挑戰** **國民教育** 福建中學（小西灣）　洪連杉老師　　潔心林炳炎中學　劉瑤紅校長 **簡介：** 國民教育是現在香港教育制度面對的一大挑戰。本論壇將邀請四位講者，包括學者及前線同工， 從不同角度探討國民教育在香港實踐的經驗，以及學理上之反思。	D1-LP-04

HKERA International Conference Paper Presentation	14:30-16:00

Higher and Teacher Education	D2-LP-07

3.4A - 1 - 3361	Leading to Students' Argumentation by Questioning: Case Studies in Science Lessons	English

Author(s)	**Qun XIE,** ZheJiang Normal University, China **Wing Mui Winnie SO,** The Education University of Hong Kong, Hong Kong

Objectives

Argumentation received enduring attentions by science educators. However, to most science teachers, argumentation is a relatively unfamiliar strategy and it seldom automatically take place in science lessons. How to lead students' composing argumentation still confused to most of them. The aims of this study were to examine how do questioning influence the students' argumentation in science lessons.

Methodology

Case studies were used in this study. Six preservice science teachers (PSSTs) were enrolled. A variety of data source, lesson recordings, teaching reflection form, and field notes were collected to explore the questioning and the students' argumentation practice in their lessons. All the lessons given by these PSSTs' were fully transcribed and analyzed.

Results

Teachers' closed questions and students' short answers after them were the main discourses pattern in these lessons. On the contrary, the number of open questions were fewer. There were three types of questions which did not follow with students' argumentation directly. The qualities of students' argumentations were influenced by how the open questions were asked by the PSSTs.

Conclusions

Teachers' questioning can influence students' argumentation in two ways: the occurrence and the quality of students' argumentation. However, it also showed that the students' argumentation in science lesson were also determined by other factors.

Key words: Argumentation   Questioning   Science Education

Higher and Teacher Education	D2-LP-07

3.4A - 2 - 1088	Pre-Service Teachers' Process of Meaningful ICT (Information & Communication Technologies) Learning	English

Author(s)	**Wee Kwan QUEK,** National Institute of Education, Nanyang Technological University, Singapore

This paper explores the effectiveness of a pedagogical approach taken by the instructor in a Singapore pre-service teachers' preparatory course "ICT for Meaningful Learning". The course prepares pre-service teachers to facilitate meaningful learning in schools with the help of ICT.

Instructors are given the autonomy to design four of the twelve sessions currently known as 'TELs' (Technology-Enabled Lessons). In these 4 sessions, the pre-service teachers are expected to understand what ICT tools are available in their area of Curriculum Studies, rationalise their affordances, demonstrate their usage and share meaningful lesson ideas. The learning activities were designed to facilitate pre-service teachers' positive experience of meaningful learning and therefore modelling how they can, in future, facilitate a similar learning experience for their students. As an instructor, I am interested to find out the effectiveness of TELs the way I had designed them.

To investigate the above, two sources of data are considered – my reflection as the instructor and my students' feedback on TELs. I observed that the learning process in TELs does align itself to the four characteristics of meaningful learning (as described in the course outline) – Authentic, Active, Collaborative and Reflective. A preliminary look at the students' feedback also suggests a positive learning experience as a result of TELs.

Looking ahead, the question is whether the design of my TELs benefit pre-service teachers and if there are better ways of facilitating their learning. If this approach works, how can we improve TELs to benefit more pre-service teachers? Detailed findings will be shared and discussions can take place during the presentation.

Higher and Teacher Education	D2-LP-07

3.4A - 3 - 3370	Dealing with Multiple Voices: Academic Discourse Socialization of Beginning Doctoral Students Using English as an Academic Lingua Franca in Hong Kong	English

Author(s)	**Min YANG,** The University of Hong Kong, Hong Kong

It is common for doctoral students to receive suggestions and comments from mentors and other academics in the process of learning the academic discourse of an academic community. Although learning to deal with the comments is an integral part of academic discourse learning, few studies focused on how doctoral students negotiate with different voices in this process of learning. This study aims to address how beginning doctoral students responded to comments in the process of thesis writing. The theoretical lenses of the study were academic discourse socialization, mediation, and multiple voices. An ethnographic multiple-case study design was used, with four sources of data collected from a group of beginning doctoral students at a university in Hong Kong over twelve to eighteen months: (1) the developing written drafts of a thesis and oral/written comments received, (2) semi-structured and text-based interviews, (3) observation of the participants in academic activities and field notes, and (4) the participants' written journals that documented instances of negotiation with multiple voices. The data was analyzed with an ethnographic-based discourse analytical approach. It was found that responding to multiple voices was a multi-layered process, and the different voices the participants received interacted with and mediated one another in academic discourse learning. With the findings, this study provides insights into higher education by revealing the complexities of multiple voices as mediation in academic discourse learning and socialization and providing suggestions for enhancing the thesis writing experience.

Secondary School Education	D3-G-03

3.4B - 1 - 1014	To Be Good Or Not: the Role of Mastery Approach Goal and Quality of teacher-student relationship in self control and Academic Achievement	English

Author(s)	**Li CAINA,** 陕西师范大学心理学院, China **Gu JIAOJIAO,** 陕西师范大学心理学院, China **Dai WENJIE,** 陕西师范大学心理学院, China

This 2-wave longitudinal study attempts to explain the link between self control and academic achievement by testing the potential mediating and moderating roles of 2 critical factors: mastery approach goal and the quality of the teacher-student relationship among a sample of 2569 junior middle school students recruited from China in two years. The results indicate that the effect of self control was partially mediated by mastery approach goal. Moreover, moderated mediation analyses using MPLUS revealed that teacher emotional support buffered the negative effect of low self control(via mastery approach goal) on academic achievement, whereas teacher emotional conflict plays a risk role in this link. The findings highlight the importance of the teacher-student relationship increasing or reducing mastery approach goal, particularly among adolescent with low levels of self control.

Secondary School Education	D3-G-03

3.4B - 2 - 1040	Bridging theory and practice in career guidance: a Hong Kong case study	English

Author(s)	**Pak-Wing Lawrence WONG**, Hong Kong

In many countries, career guidance has long been recognized as an integral component within the school curriculum. However, in the Hong Kong secondary school sector, it seems that career guidance is a neglected area in student counseling. In 2009, the role of career guidance in secondary school was reformulated when the New Senior Secondary (NSS) Curriculum was implemented. Under the NSS curriculum, a whole-person developmental view of career guidance is to be delivered to all learners. In order to support this new vision, the Career and Life Planning Grant was subsequently launched in 2014 to empower this paradigm shift.

It seems that since the introduction of the Grant, much of the literature has been focusing on discussing the perception of in-service teachers on how the Grant is deployed. The issue of how career interventions could be better informed by career theories and evidence-based models in actual school settings seems to have been thinly discussed.

This paper reflects upon this issue by using the perspective of an in-service career guidance teacher, to identify how personal, social and cultural factors have helped to shape the design of a career guidance program at a secondary school in Hong Kong. A case study approach has been adopted to provide a close examination and reveal unique insights of the issue (Yin, 1994). The study reveals that although the Grant, to a certain extent, can help to increase the accessibility of career guidance resources, a paradigm shift is only possible when curriculum leaders and front-line teachers share the same beliefs and professional knowledge.

Yin, R. K. (1994). Case study research: Design and methods (2nd ed.). Newbury Park,
CA: Sage.

Secondary School Education	D3-G-03
3.4B - 3 - 1051 Education for sustainability in international schools in China	English

Author(s)	**Annette GOUGH,** RMIT University, Australia **Bowen HUANG,** The Education University of Hong Kong, Hong Kong

Although there has been much writing about the growth of education for sustainability (EfS) and green schools in China, there has not yet been any research into how the international schools in China are taking on board the key global issues of climate change, environmental protection and the United Nations' sustainable development goals. International schools do not need to follow the local curriculum but rather teach the curriculum of another country or the International Baccalaureate. This study investigates the status of EfS in these schools, the understandings, attitudes and activities of teachers and principals, the school curriculum, and school policies. The study also investigates the barriers to, and difficulties experienced with, teaching EfS in the schools, and identifies best practice examples.

The research involves developing interpretive case studies of several international schools in China, which will address the above aims for the study. The research methods include closed question surveys and semi-structured interviews with the principal and teachers in the schools together with unsystematic non-participant observations at each case study school. The research is currently in progress and will be concluded by May 2017. Preliminary results indicate that the international schools are working on local environmental issues while focusing globally and, for example, participating in Council of International Schools student awards, but there are barriers such as the pressures of the teaching the formal assessed curriculum.

Primary School Education	D2-LP-04
3.4C - 1 - 2258 小学生阅读投入与阅读成就的关系研究：教师教学行为的调节作用	普通話

Author(s)	**汪溪,** 北京师范大学，中國 **李倩,** 北京师范大学，中國

在义务教育阶段，阅读是学生了解外部世界，获取信息与学科知识的重要途径，更是获得个体未来发展的重要前提。本研究采用多层线性模型的分析方法，对小学四年级学生阅读投入与阅读学业成就的互动关系进行探究，并尝试进一步探究教师阅读教学取向与阅读策略教学是否起到调节作用。样本数据来自中国东部 Z 省市 1145 所学校，共计 34276 名学生。分析结果表明：（1）以认知投入、情感投入、行为投入为主的阅读投入对阅读学业成就具有积极预测作用；（2）在阅读投入与阅读成就的关系中，教师自主学习取向的阅读教学行为具有一定的调节作用。

Primary School Education	D2-LP-04
3.4C - 2 - 2270 教师专业性研究	普通話

Author(s)	**陈鹏,** ZhouKou National University，中國

影响教师专业性的要因多种多样，其中教师的研修及培训是教师提高专业性的传统方式之一。现行的教师职前培训及在职培训制度是否立足于教师的职业需求，从内容上、方法上、执行上、评估效果上达到教师研修及培训的目的，值得教育界及教育学者的深层思考和探究。为了提高教师教育教学能力，提高教师研修级培训的合理性和效率性势在必行。另外，从根本上提升教师对教职的价值认知，将教育事业的高尚性贯彻在教职生活中，通过提供高质量的教育教学活动获得社会对教师的尊重；实现教师间的学习共同体出发，促进教师间关于教育教学的交流，从学校整体上提高教师的教学层次；减少教师精力耗尽可能性，不断从理论、实践、业余生活上丰富自身经历，提升教师职业魅力；通过效率性的人事管理，保障教师教权，适当调整教师福利福祉待遇，提高教师的职业满足度。

Higher and Teacher Education	D3-G-05
3.4H - 1 - 3331 The Known Secret: Microaggressions targeting at Chinese International Students	English

Author(s)	**Shaohua PEI,** Iowa State University, United States

The proposed study aims to examine the microaggression experience of Chinese international college students while studying in the U.S. universities.   The goals of the proposed study are: First, to explore the types and categories of microaggressions which Chinese international college students experience both on and off campus; Second, to analyze how Chinese international college students deal with microaggression

incidents; Third, to provide suggestions and implications for higher education institution researchers and practitioners as well as Chinese international college students in the U.S.

A sequential mixed methods approach will be employed to investigate the perceived microaggressions in a large public Mid-western university with over 4,131 international students .   A microaggression stress model developed from the minority stress model   will be utilized as the overarching conceptual framework for the proposed study.   Data will be analyzed with microaggression process model.   Findings of this study will contribute to the existing literature and provide praxis implications for researchers and practitioners working with international students.

Higher and Teacher Education	D3-G-05
3.4H - 2 - 1002	ANALYSIS OF THE MATHEMATICAL TEACHER CONTENT KNOWLEDGE OF MIDDLE SCHOOL TEACHERS THROUGH THE YEARS OF TEACHING EXPERIENCE / English

Author(s)	**Maria De Los Angeles CRUZ QUINONES,** Universidad Autonoma de ciudad Juarez, Mexico
	Mourat TCHOSHANOV, University of Texas at El Paso,
	maria Dolores CRUZ QUINONES, new mexico state university,
	Rocio GALLARDO, University of Texas at El Paso,
	Hector PORTILLO, universidad autonoma de ciudad juarez,

The issue of teacher knowledge is critical to be addressed due to the knowledge possessed by the teachers might have an impact on students learning (TEDS-M, Breaking the cycle, 2010). Nowadays, there are studies around the world have focused on teacher knowledge (e.g. Shulman, 1986; Tchoshanov, Cruz., Huereca, Shakirova, Shakirova, and Ibragimova, 2015). The purpose of this study is to examine the mathematical teacher content knowledge of Mexican teachers. Three cognitive types of teacher content knowledge were identified: knowledge of facts and procedures T1, knowledge of connections and concepts T2, and knowledge of generalizations and models T3 (Tchoshanov, 2011).   Additionally, to know what kinds of knowledge persist or improve through the years of teaching experience is relevant to understand the teaching practices in mathematics classrooms.   The sample was 64 teachers from 7-9 grades in Mexico were tested using the teacher content knowledge survey (TCKS). An examination of each cognitive type of content knowledge and the overall TCKS score as they related to years of teaching experience, and the correlations among the cognitive types of teacher content knowledge are presented. Findings show that teaching experience is strong correlated with the mathematical teacher content knowledge concerned to the knowledge of facts and procedures. Results indicate that T1 teacher knowledge become more solid through the years of teaching mathematics. However, after 20 years of teaching experience, we add to the discussion that teachers are reluctant to change due to they actually are in a "comfort zone" and they do mechanically their teaching routines.

Higher and Teacher Education	D3-G-05
3.4H - 3 - 2286	The Development of an Invitational Education Graduate Program / English

Author(s)	**Michael K. BARBOUR**, Touro University, California, United States
	Lisa PALACOIS, Touro University, California, United States
	Peter WONG, Hong Kong Education Bureau, Hong Kong
	Jim O'CONNOR, Touro University, California, United States

Invitational education® posits that a positive learning environment can be created when those involved are intentionally inviting in their attitudes and actions.   The foundations of invitational education® are rooted in the belief that a democratic environment makes people feel invited, individuals act based on their perception of the environment, and how an individual perceives themselves within the environment is important. In an invitational education® school these principles are reflected in an inviting stance through the elements of intentionally, care, optimism, respect, and trust.   These elements need to be applied and experienced to each of the domains that make up every school – people, places, policies, programs and process within the school.

Although invitational education® started in the US, there is growing number of international invitational education® schools – especially in Asia.   In fact since 2000, 82 Hong Kong and 20 mainland China schools have won the International Association for Invitational Education's® Inviting School Award.   However, the availability of IE-focused teacher preparation initiatives has largely been absent.   While several institutions have adopted a model of invitational education® in practice, only a few provide any curricular offerings on the subject.   Approximately a decade ago one US university attempted to develop an invitational education® program, however, the technology that would have been needed was unavailable.

This session will explore the creation of an online graduate degree in invitational education® focused on an international audience, with faculty primarily from the US and students located in international jurisdictions.

WERA Focal Meeting Paper Presentation			14:30-16:00
Reference Code	**Presentation Title**	**Abstract**	**Presenter(s) / Author(s)**
Teacher Satisfaction from a Global Perspective			D2-LP-03
3.4D	**Chair: Jess HARRIS**, University of Newcastle, Australia, jess.harris@newcastle.edu.au		
3.4D - 1 - 62	Performance-Based Compensation in High Performing Schools in Shanghai: Infusing Incentivism, Accountability, and Confucianism To Improve Teaching	Despite the dismal empirical record, Performance-based compensation (PBC) is gaining traction in the education systems of high performing countries and world economic leaders. Although research suggests bonuses do not work as advocates expect, we know little about how PBC unfolds in complex school settings. This research examined teacher perceptions on how merit pay shaped teaching in four high performing elementary school in Shanghai. Shanghai provided the opportunity to investigate PBC in an education system that is undergirded by Confucian values but is increasingly moving toward incentivism and performance-based accountability. Shanghai has gained global influence yet its policy effects remain understudied. Four principals and 60 teachers were interviewed, and a range of policy documents were collected in this qualitative, multisite case study. Data were coded according to theory on incentivism, policy enactment, and teacher improvement. Teachers had little understanding of merit pay implementation processes, and norms of respect and deference to authority guided teachers' silence on and acceptance of the policy and shaped their participation in policy enactment. Most teachers suggested that a sense of personal responsibility for collective good and by public displays of recognition from their peers and superiors guided their motivation and self-efficacy. Additionally, teachers suggested that social relationships, professional community, and trust were more efficacious ways to get to improved teacher quality. By investigating incentivism as situated in the sociocultural and political environments of schools, we can better assess the prevailing hypothesis that there is a neat relationship between an incentive, teacher practice, and student learning.	**Priya LA LONDE,** Georgetown University, USA, pgoel4@illinois.edu
3.4D - 2 - 63	The development of indicators on teacher working conditions	The text describes indicators developed to assess aspects of teaching in basic education and analyses the multiple associations of these aspects that allow the understanding of the context of professionals in schools. The metrics were produced through the Survey on Basic Education in Brazil, carried out by the Group of Studies on Educational Policy and Teaching Work (Gestrado / UFMG) in seven states of the country. The metrics produced provide a broad view of the subjective experiences of teachers in the environments in which they teach. The indicators include the autonomy of teachers in developing their teaching activities, the performance of activities with the participation of their peers, the presence of collaborative work, the adequacy of the environment in which they work and the professional preparation for the start of the career. The joint analysis of these indicators empirically testifies to the fact that the network of relationships between them, established from previous knowledge about the subject through literature review and focus group discussions portrays the researched reality.	**Dalila OLIVEIRA,** UFMG, Brazil, dalilaufmg@yahoo.com.br; **Edmilson PEREIRA,** UFMG, Brazil, edmilsonpj@yahoo.com.br; **Natalia DE SANTANA REVI**, UCL –Institute of Education - London, United Kingdom, nataliasantana359@hotmail.com

Reference Code	Presentation Title	Abstract	Presenter(s) / Author(s)
3.4D - 3 - 75	Perceptions and Experiences with Teaching in the 2015 PISA	This paper examined the extent to which teacher job satisfaction is associated with collaboration and transformative leadership behaviors. It also considered the relationship between availability of teaching materials or staff and teacher satisfaction. Lastly, the study compared the countries with the most satisfied teachers to those with the least satisfied. The researchers for this study utilized the 2015 PISA teacher questionnaire responses for this study. They calculated overall descriptive statistics, including mean and standard deviation, for all variables of study as well as within-country statistics. They conducted bivariate correlations to determine the relationships among the variables. After sorting the countries based upon mean levels of satisfaction, researchers compared the countries with the highest and lowest levels of satisfaction through a series of independent samples t-tests.	**S Marshall PERRY**, Saint Mary's College of California, USA, smp21@stmarys-ca.edu; **Laura MORRIS,** Saint Mary's College of California, USA, lsm7@stmarys-ca.edu; **Gilbert J ARMENTA**, Saint Mary's College of California, USA, gja2@stmarys-ca.edu; **Deanna Utley,** Saint Mary's College of California, USA, dku1@stmarys-ca.edu; **Rochelle HOOKS,** Saint Mary's College of California, USA, rh19@stmarys-ca.edu
3.4D - 4 - 42	Motivations to Be a Teacher: Study on Teachers from Jamaica, Poland, and Turkey	The paper presents the preliminary findings derived from the comparative, international and cross-cultural study on teachers' motivation to choosing teaching as a career. This kind of motivation is an especially important factor not only in admission to, progression in and graduation from a teacher education programs (Blömeke et all. 2012), but also in explaining why teacher education graduates do not enter the profession or drop out after a short period of time (Rots et al. 2010; Thomson, Turner, and Nietfeld 2012; Watt and Richardson 2008; Drózka and Madalińska-Michalak 2016). The aim of this study is to explore the motives to be a teacher among teachers from three countries which are located at different continents. The study is guided by the research question focuses on the reasons for choosing teaching as a career and the factors that influence on them. Based on the results of the factor analysis conducted, there are four main factors why the participants chose teaching as a career. The first is internal enjoyment the profession brings to the participants, the second is the external influence/forces, the third is expectations, and the fourth factor is contribution to society. Because the study crosses the international and continental boundaries, it is anticipated that the findings will shade more lights on why persons choose teaching as a career in the three countries. The presented findings can be important in supporting the professional development of prospective and in-service teachers at all levels of education.	**Joanna MADALIŃSKA-MICHALAK**, University of Warsaw, Poland, j.madalinska@uw.edu.pl, **CYNTHIA ONYEFULU,** University of Technology, Jamaica, conyefulu@gmail.com; **Bünyamin BAVLI,** Yildiz Technical University, Turkey, bunyaminbavli@gmail.com

WERA Focal Meeting Symposium

Reference Code	Presentation Title	Presenter(s) / Author(s)	Chair/Discussant(s)
Global South Perspectives on Didactics – Learning and Teaching*		**D2-LP-10**	
3.4E - 22	Primary and Junior High School Mathematics and Science Teachers' Views on Teaching	**Ernest Kofi DAVIS**, University of Cape Coast, Ghana, ekdavis@ucc.edu.gh **Christopher BECCLES,** University of Cape Coast, Ghana, cbeccles@ucc.edu.gh **Joseph Ghartey AMPIAH**, University of Cape Coast, Ghana,	**Chair & Discussant:** **Brian HUDSON**, University of Sussex, UK, b.g.hudson@sussex.ac.uk

		Jgampiah@ucc.edu.gh
	Teaching Practices of Newly Qualified, Experienced Trained and Untrained Teachers in Basic Schools in Ghana	**Christopher Yaw KWAAH,** University of Cape Coast, Ghana, christopher.kwaah@ucc.edu.gh **Joseph Ghartey AMPIAH,** University of Cape Coast, Ghana, Jgampiah@ucc.edu.gh
	Effects of Combining Inquiry-Based Hands-On and Simulation with Cooperative Learning on Students' Learning Outcomes in Electric Circuits	**Godwin Kwame ABOAGYE**, University of Cape Coast, Ghana, aduabuagye@ucc.edu.gh **Theophilus Aquinas OSSEI-ANTO,** University of Cape Coast, Ghana, osseianto@yahoo.com
	Using Audience Response System as an Instructional Tool in a Developing Country: The good, bad and ugly	**Kofi AYEBI-ARTHUR,** University of Cape Coast, Ghana, kofiayebi@gmail.com **Kofi Acheaw OWUSU,** University of Cape Coast, Ghana, Acheaw.owusu@ucc.edu.gh
	Perceived Social Support Network and Student Achievement in Mathematics in an African Context: Mediation by Motivational Beliefs and Moderation by Gender	**Emmanuel Adu-Tutu BOFAH**, University of Cape Coast, Ghana, Emmanuel.bofah@hotmail.com **Foster NTOW**, University of Cape Coast, Ghana, fntow@ucc.edu.gh

Abstract

The sub-group on Didactics – Learning and Teaching in Ghana was formed in 2014 following the establishment of the WERA IRN on Didactics – Learning and Teaching in the same year. Initially the focus was on mathematics and science education research and leading members of the group presented papers at the WERA 2014 Focal Meetings in Edinburgh, Scotland (Davis and Ampiah, 2014) and subsequently in Washington in 2016 (Davis and Ampiah, 2016). Membership of the group is based on a core group of researchers in the College of Education Studies at the University of Cape Coast, Ghana. During this time, the number of active members has grown significantly to include also a number of school teachers and other educational practitioners. The group aims to contribute to the improvement of teaching and learning practices at all levels in Ghana and also contribute to research on teaching and learning in the Sub-Saharan African context in particular. Currently there are three major research themes around which research on different aspects of teaching and learning is conducted. These are innovative teaching approaches, research on the use of ICT in teaching and learning and research on the affective dimension in teaching and learning. This symposium proposal arises from the activities of the WERA IRN on Didactics - Learning and Teaching and also from associated activities of the ICERDA initiative (International Conference on Education Research for Development in Africa), the second conference of which was held in Accra in October 2016 on the theme: Towards a Vision of Education for Sustainable Development in Africa. It also responds to the "Global South Education Research Agenda" arising from the WERA Symposium and Round Table at the recent AERA 2017 Conference in San Antonio. The rationale for this symposium is to contribute to the understanding of innovation, reform and education change in the Global South by sharing research activities and findings with participants worldwide. It also aims to foster collaboration with potential researchers in the WERA IRN and more widely who are interested in collaboration with researchers from developing countries, especially in Sub-Sahara Africa. It therefore, focuses on Sub-Saharan Africa and on Ghana in particular, showcasing research studies on teachers' views, teaching practices and learning outcomes.

References:
Davis, E. and Ampiah, J. (2014) A three-tier teaching model for teaching mathematics in context, Paper to Research Workshop Developing a WERA International Research Network on Didactics - Learning and Teaching, Annual Conference of the Scottish Educational Research Association/WERA Focal Meeting, University of Edinburgh, 19th-21st November 2014
Davis, E. and Ampiah, J. (2016) Teaching Mathematics in Context to Promote Pupils' Understanding of Primary School Mathematics, Paper to Symposium Beyond Fragmentation: Global Perspectives on Didactics, Learning and Teaching, WERA Focal Meeting 2016, Annual Meeting of the American Educational Research Association (AERA), Washington D.C., 8-12 April 2016.

*Part of the WERA International Research Network (IRN): 'Didactics – Learning and Teaching'

WERA Doctoral and Early Career Network (DEC) Meeting

Time	Venue	Description	Chair

15:00-16:00	D3-LP-07	The DEC provide doctoral and early career scholars with an opportunity to network with and meet each other, as well as to build relationships with expert researchers in the field of education. Please come and join other early career scholars and graduate students for the opportunity to become engaged in WERA and to facilitate your professional development, engagement, and networking in education research worldwide.	**Prof Mustafa Yunus ERYAMAN** President of the Turkish Educational Research Association (EAB) and International Association of Educators (INASED) Vice President of the World Education Research Association (WERA)
16:00-16:15	**Afternnon Tea Break**		Outside area of D1-LP-08

Parallel Session 3.5 — 16:15-17:45

HKERA International Conference Paper Presentation — 16:15-17:45

Special Education Needs		D2-LP-04
3.5A - 1 - 1160	Useful Information from the Students with Visual Impairment in Hong Kong Mainstream Schools who Participated in Outdoor Learning Opportunities	English
Author(s)	**Yiu Bun CHUNG,** The Education University of Hong Kong, Hong Kong **Mantak YUEN,** The University of Hong Kong, Hong Kong	

All students, including those with disabilities, are entitled to participate in outdoor learning. However, previous research has found students with visual impairment in mainstream Hong Kong schools often encounter difficulties (and even exclusion) in learning activities conducted outdoors. The research reported here aimed to explore the reactions of students with visual impairment who participate in outdoor learning, and then to recommend solutions for overcoming any obstacles that they identify. A phenomenological inquiry approach was applied to examine data through the live experiences of the students. Their perceptions of the experiences offered by their schools were also collected. The key findings on the positive side were: First, most of the mainstream schools do provide outdoor learning opportunities to all students, including those with visual impairment. Second, some students with visual impairment love to participate in outdoor learning because they can acquire more real-life knowledge; and they can also socialize with different people. Third, students with visual impairment perceive that they can play a more active role (e.g. as a leader) in outdoor activities to help them learn effectively. Findings on the less positive side were: First, public's non-inviting attitudes were perceived to be a difficulty the students encountered. Second, students with visual impairment tend to need more time to deal with other school work, and often reluctantly choose to withdraw from optional outdoor learning opportunities. Third, there are insufficient provisions made for their outdoor learning and community service. Implications of the findings for school policies and practices are discussed.

Special Education Needs		D2-LP-04
3.5A - 2 - 2205	Movement and Special Educational Needs?	English
Author(s)	**Barbara RACZ,** EA International Youth Club, China	

According some educational researchers in Italy body and mind are still split in education (Kanizsa, 2007; Parente, 2010), such as, there is no space for movement and games in mainstream schools, despite being aware of their benefits. Moreover, certain specific literacy related special needs – dyslexia - and foreign language learning are widely studied, movement as a source for quality education for all is less considered. Therefore, the present paper, aims to discuss pros and cons of the use of movement and games in Modern Foreign Language (MFL) learning/teaching where Special Educational Needs (SEN) appear in classrooms. Representing the findings of a qualitative multiple embedded-case study research (Yin, 2009) concluded in Italy and England, it also wants to contribute to the better understanding of the challenges of the real actors in the field and bridge a gap between research and practice in an innovative way. Both students and teachers got voice due to three research tools: semi-structured questionnaires revealed teachers' views, focus group interviews with photo elicitation the students' views and classroom observations gave insights to realities of MFL learning in inclusive contexts in mainstream schools. Findings supported idea on the existence of body – mind dichotomy, and consequently, the presentation intends to raise ore questions to foster international discussion in finding the best solutions for arising needs. Why are the "alternative" methods accepted and welcome in private educational business models, and avoided in mainstream schools?

Special Education Needs	D2-LP-04
3.5A - 3 - 2225	Learning to be Myself": Paths 2 the Future Career Development Curriculum　for Young Women with Disabilities	English

| Author(s) | **Angela INGRAM,** University of Oregon, United States |

Globally, young women with disabilities encounter unique challenges and barriers based on dual exposure to gender stereotypes and disability discrimination creating a "double jeopardy" situation that restricts career development and limits educational opportunities. The current study examines the P2F curriculum, which is a school-based intervention that is designed as a response to the documented poor postschool transition outcomes and lack of career development opportunities for young women with disabilities. P2F is intended to address gender inequities in vocational outcomes through a comprehensive career development curriculum that targets internal and external barriers and introduces a wide range of career options. We will present qualitative focus group data that was collected after the first phase of the study. These findings, developed from 4 focus groups, allowed us to gain a more in-depth understanding of the participant's perspectives about the program. After completing the curriculum the participants experienced positive shifts in their perceptions of self-awareness, self-confidence and increased empowerment about being female. Overall, participation in a curriculum developed for adolescent girls with disabilities had a positive impact on the study participants. In addition to the initial qualitative findings, global aspects of gender and disability will be discussed, along with implications for research and practice.

Curriculum Instruction Assessment and Policy	D2-LP-07
3.5B - 1 - 1109	教師教學信念、進修動機與組織氛圍對國中綜合活動領域教師學科教學知識的影響	普通話

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洪素蘋, 國立成功大學, 台灣 |

本研究旨在探討國中綜合活動領域教師個人內在因素（教師教學信念、教師學習動機）與外在環境（教師學習組織文化）對教師學科教學知識發展之影響。研究採立意取樣，邀請台灣地區 385 位國中綜合活動領域教師，以多向度試題反應理論探討研究工具的信、效度，並結合潛在迴歸模式進行分析。研究結果如下：1.教師教學信念會影響綜合活動領域教師學科教學知識，教師應培養正向教學信念。2.教師學習動機會影響教師學科教學知識，而學校組織氛圍會影響教師學習動機並且透過學習動機為中介影響國中綜合活動領域教師學科教學知識的發展，因此學校應建立良好學習氛圍，以利教師發展學科教學知識。

Curriculum Instruction Assessment and Policy	D2-LP-07
3.5B - 2 - 2279	高職學校創新課程之個案研究	普通話

| Author(s) | 江彧璇, 國立暨南國際大學, 台灣
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Hsien-I PENG, 國立草屯高級商工職業學校, 台灣 |

本研究旨在運用質性研究方法探討台灣一所高級職業學校研發實施創新課程中，教師專業及學生學習之發展與演變歷程。運用文件分析、直接參與觀察和深度訪談等方法，預期達成以下研究目的：一、瞭解該課程對學生科學學習態度的影響；二、瞭解跨科合班協同教學對師生的影響；三、瞭解該課程的開發歷程；四、瞭解該課程對學生探究精神的影響。研究初步發現有：一、此創新課程能提升學生科學學習態度；二、跨科合班協同教學，能提升教與學的深度與廣度；三、低成本、易取得的材料有助於課程開發；四、以學生為中心的教學，能培養學生的探究精神。

Curriculum Instruction Assessment and Policy	D2-LP-07
3.5B - 3 - 3383	多不多？难不难？累不累？——中小学生课业负担调查研究	普通話

| Author(s) | 秦玉友, 东北师范大学, 中國
赵忠平, 浙江师范大学, 中國 |

研究中小学生课业负担，不仅要关注课业的多寡，更要关注每位学生对课业的难度感知以及完成课业后的身心劳累程度。基于全国 10 省 20 市（县）中小学生的调查研究表明，学生的课业负担存在明显的学段、城乡和学习水平的差异，并表现出一定的趋向。教育行政部门、学校、家庭应协同努力，有效减轻和控制中小学生过重的课业负担。

Education Leadership and Management	D3-G-03
3.5C - 1 - 1059	從個案研究探討影響特殊教育需要統籌主任工作成效的關鍵因素	廣東話

| Author(s) | 呂梓良, 香港教育大學, 香港
司徒勝營, 香港教育大學, 香港 |

廖恩達, 香港教育大學, 香港
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2012 年平等機會委員會進行的全港融合教育的調查告中，指出特殊教育需要統籌主任（特教統籌主任 / SENCOs）在融合教育的重要性和領導地位，建議在主流學校應常設這個職位。其後在 2015 年行政長官施政報告中建議撥款港幣 2 億元推行一項為期三年的先導計劃。然而，對於特教統籌主任工作成效的研究卻不多。為了進一步了解他們在支援特殊教育需要學生的優勢及挑戰，研究小組以個案研究方式，與主流學校的校長、特教統籌主任和學生進行了半結構的訪談，內容主要集中在參與及不參與先導計劃學校的特教統籌主任工作的異同、校內教師與特教統籌主任的合作模式等。研究結果顯示，在先導計劃學校內教師會將大量與特殊教育需要學生的工作，回撥到特教統籌主任的手上，加重了他們的工作壓力。此外，就一所未受惠於先導計劃的小學，從特教支援主任與同校輔導教師的合作模式來看，其經驗及成效較現行先導計劃的建議更為理想。本報告並討論特教統籌主任工作成效的關鍵因素。

Education Leadership and Management	D3-G-03
3.5C - 2 - 3338 STEM 教育的策劃與實踐：以三所本地小學為例	廣東話

Author(s)	許漢榮, 香港教育大學, 香港

STEM（科學、科技、工程與數學）教育，是近年香港教育當局力推的教育項目，並由政府以專項撥款的形式支援學校推行（小學為十萬港元、中學為二十萬港元）。政府在 2015 年發表諮詢文件，並且計劃在 2016 年起的三個學年，推出不同的項目以推行 STEM 教育。

本文將以香港三所小學（浸信會天虹小學、天主教博智小學、慈幼英文學校）為例，透過他們推行 STEM 教育的經驗，檢視現時政策與學校實踐之間存在著什麼問題，並且以他們的經驗，嘗試為香港未來推行 STEM 教育提出建議，供各界參考。

Education Leadership and Management	D3-G-03
3.5C - 3 - 3359 香港小學副校長人事管理的進修需要摘要	廣東話

Author(s)	胡少偉, 香港教育大學, 香港

教育局於 2008/09 學年起開設高級小學學位教師職級，為小學副校長，其職責是要協助校長處理下列四方面工作：課程發展與管理，學與教及學生評估；全校參與的關顧輔導與學生支援；人力資源管理；學校管理、評估及發展。自職位設立後，本地學者和專業團體對副校長的專業成長有更多的關注和研究，基於早年研究發現人力管理是小學副校長常擔當的職責之一；香港初等教育研究學會其後進行小學副校長人事管理的調查，就副校長的職責、人事管理困難和持續發展需要作深入研究。此文將結合該調查數據和文獻資料，分析和討論香港小學副校長在人事管理的專業發展需要，並就相關在職培訓作出建議。

WERA Focal Meeting Paper Presentation			16:15-17:45
Reference Code	**Presentation Title**	**Abstract**	**Presenter(s) / Author(s)**
Global Perspective on Place and Power in Education			D2-LP-03
3.5D	**Chair: Zitong WEI,** China Women's University, China, ziwei@imail.iu.edu		
3.5D - 1 - 166	Soviet and American Influences on Education in North and South Vietnam (1954—1975)	This study investigates the influences of the Soviet Union and the United States on education development in North and South Vietnam during the period of separation and the Vietnam War (1954-1975). It employs historical and sociological analyses of secondary data, including archival materials, governmental and military documents, curricula and textbooks, and written accounts of education governance from the time period. In addition, it also includes ethnographic accounts of the teachers, students, and educators who lived through	**Tonya KNEFF-CHANG**, University of Michigan, USA, tkneff@umich.edu; **Minh HUYNH**, University of Michigan, USA, minhhq@umich.edu

		the separation. The findings will shed light on the similarities and differences between the two systems of education under the influences of two competing imperial forces. It also connects such influences with the ongoing features and aspects of the present-day systems using the frameworks of cultural political economy and postcolonial theories. This connection highlights the importance of historical understanding and the impacts of history on the systemic form, function, and development strategies for education in Vietnam.	
3.5D - 2 - 104	Identities and Cultures in Globalized, Postcolonial India: Considerations for Decolonizing Education Work	Postcolonialism and globalization are intertwined, as are colonizer and colonized in their ambivalent relationship. Transnational forms of oppression are shaped by the spread of Westernized imperialism through globalized capitalism and new technologies. Such forces also shape educational discourses, policies, and practices in present-day postcolonial contexts. Postcolonial, globalized India is largely represented in "Western" media as home to Bollywood, tech expertise, and call centers. Consumerism and capitalism now shape identities, cultures, and education in India. Such issues are evident also in U.S. social and educational contexts. This paper draws on the above theoretical analyses and data from a 2014-15 Fulbright-funded qualitative study on globalization and education in 21st-century India to consider implications in terms of identity, culture, and representation as well as possibilities for decolonizing education work in an increasingly interdependent world. Analyses of data gathered through in-depth interviews with students in a graduate education program, observations, media reports, and secondary sources revealed that instrumental considerations of financial security and success in a culture of consumerism, and emphasis on English and STEM fields are shaping identities and cultures. Loss of indigenous cultures and languages, increasing dominance of American culture, privatization of education, and increasing educational and economic inequities are evident. These findings reveal how global capitalism and consumerism are shaping knowledge, technologies, relations of power, production, and consumption. Unless we persevere with our efforts at decolonization – in the interstices between the macro and the micro contexts – we run the risk of being complicit in oppressive structures and practices, old and new.	**Nina ASHER,** University of Minnesota-Twin Cities, USA, nasher@umn.edu
3.5D - 3 - 124	What do we know? The case of replication and generalization in selected Educational Psychology journals	What do we know to be true in education? What facts and patterns can be replicated and can be generalized to other participants with different demographic and geographic backgrounds? Makel and Plucker (2014) documented how rare it is to find replications of studies in 100 leading education journals (less than 1 percent of the time). Arnett (2008) showed how infrequently international editors, authors, and participants appeared in the published research of major journals of APA (the American Psychological Association). And, Henrich et al. (2010) surveyed a broad range of topics in psychological and dubbed the overwhelming body of research "WEIRD"-overwhelming biased toward Western, European, Industrialized, Rich, and Developed countries and participants. This paper reports the findings from an ongoing study to determine whether these	**Steven YUSSEN,** University of Minnesota-Twin Cities, USA, syussen@umn.edu

Reference	Presentation Title		Presenter(s) / Author(s)	Chair/Discussant(s)
		problems still exist, in a more recent sample of published research in one area of education-educational psychology, first described in part in Yussen (2014). Given a more global focus of research interests in the past 15 years, we considered whether 3 leading journals in educational psychology are still handicapped by the problems identified earlier, when a closer examination of the work is completed. In a series of separate, but complementary analyses, we considered whether 1) limited international representation still exists in published research from 2008-2013 in these journals; 2) replication findings continue to be so rarely reported; and 3) when international research in one region of the world-Asia- does appear in these journals, how does it serve to confirm and expand our understanding of educational issues. Briefly, we found that: international representation is more frequent than found by Arnett, that attempted replication (particularly "conceptual" and "partial conceptual" replication) is much greater than claimed by Makel and Plucker (as much as 20-30 percent of published research studies) and research by Asian authors, with Asian participants expands our understanding, among other topics of the role of motivation and language in learning.		
3.5D - 4 - 37	The Educational Effects of the WTO /GATS and its Influence on the Globalization of Higher Education	The GATS has been examined in the context of the commodification of education. I define "commodification" as the transformation of something into a product that is bought and sold. Capitalization, corporatization, marketization are bound to commercialization as market-driven pressures that transformed education as a provider of public goods to a competitive industry, with institutions and others competing for financial gains. Privatization and liberalization are the main factors in the commodification process. This study investigates how the WTO creates policies for the globalization of higher education and universities. Within this context, education and knowledge have become highly competitive; many countries aspire to becoming "knowledge economies." The expression "knowledge economy" expresses the economic and political objectives that drive or determine national strategies. Brown and Lauder (1997) mentioned that higher education is at the center of many countries' economic development strategies, especially concerning workforce training, applied research, and technological transfer. As Antoni Verger (2010) highlighted, competitiveness alters the priorities of nation-states in the area of public services. Concurrently, their capacities to provide such services are changed. Finally, globalization affects the function of the state in the education field. It is thus apparent that universities are not at the margins of this change and face pressures to adapt their research activities to market demand. Neoliberal theory is the outcome of the "neoliberal economics" that developed in the US and spread into the higher education field. I demonstrated that the GATS affected higher education significantly as a commodity good through the strength of the recognition of accreditation, quality control, and student mobility.	**Masaru FUJIKAWA,** KAGAWA University, Japan, masaruv1@ja3.so-net.ne.jp	
WERA Focal Meeting Symposium				
Reference	Presentation Title		Presenter(s) / Author(s)	Chair/Discussant(s)

Code			
Different dealings with outcome-based governance instruments: Insights from Canada, Germany and the workplace learning discourse			**D3-LP-07**
3.5G - 4	Implementation of Qualification Frameworks based on input-regulated instruments	**Karl-Heinz GERHOLZ**, University of Bamberg, Germany, Karl-Heinz.Gerholz@uni-bamberg.de; **Bernd GÖSSLING**, University of Osnabrueck, Germany, bgoessling@uos.de	<u>Chair:</u> **Karl-Heinz GERHOLZ**, University of Bamberg, Germany, Karl-Heinz.Gerholz@uni-bamberg.de;
	The NOC as an outcome-oriented instrument to facilitate mobility inside and into Canada	**Silvia ANNEN,** University of Toronto, Canada, silvia.annen@googlemail.com	
	Challenges in validating of outcomes of workplace learning settings	**Christian HARTEIS,** University of Paderborn, Germany, christian.harteis@upb.de	

For a number of years, competence- and outcome-based instruments for the regulation of educational processes are implemented or gaining importance in most countries of the world (Gerholz & Brahm 2014). These include, for example, qualification frameworks, competence-based curricula or educational standards. This trend is often justified referring to the idea of increased transparency by making national or regional qualifications from various contexts more comparable to one another and to the idea of validating informal and non-formal learning for example at the workplace. However, the local development and implementation of these types of instruments depends on the respective country or discourse in a discipline. Reason for that are specific governance traditions and logics that guide the implementation processes of new instruments. In the symposium we will highlight how different these processes can look like using two national case studies with the aim to describe the complexity and sometime inconsistency of the development processes and the consequences for international comparability and use of qualifications in the light of the workplace discourse. The latter is normally the relevant target field of outcome-oriented governance instruments.

Day 4	**3 December 2017**		**16:15-17:45**
WERA Council Meeting			
Time	**Venue**	**Description**	**Chair:**
8:00-17:00	Council Camber (Block A 4F) The Education University of Hong Kong	WERA Council Meeting: By Invitation Only	**Felice J. LEVINE** President of the Wold Education Research Association