

## The World Association of Lesson Studies (WALS) International Conference 2016

<b>Presentation Code</b>	7A
<b>Title</b>	Sustaining Lesson Study
<b>Presenter/s</b>	Keith Wood, Liliya Zhurba, Charles Desforges and Christine Lee
<b>Affiliations</b>	Sultan Hassanal Bolkiah Institute of Education, Center of Excellence, Kazakhstan, University of Exeter and National Institute of Education, Nanyang Technological University, Singapore
<b>Type of presentation</b>	Plenary Symposium
<b>Strand</b>	Developing Professional Learning Communities: models and practices
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Alumni Auditorium)
<b>Abstract</b>	<p><b>Paper 1: Challenges in Sustaining Lesson Study: Lessons from Cases of Early Adopters in Lesson Study in Singapore</b></p> <p><b>Speaker:</b>      <b>Christine Kim-Eng Lee</b></p> <p><b>Abstract:</b></p> <p>Japanese Lesson Study has generated strong international interest since the first English publication about it in the Teaching Gap (Stigler &amp; Hiebert, 1999) and has been implemented in many countries around the world such as Hong Kong, Indonesia, Singapore, Sweden, United States, United Kingdom etc. Countries that have implemented lesson study have adapted lesson study in various forms according to their contexts and needs. An important issue however is whether adaptive forms of lesson study can be sustained and implemented in ways that remain true to the spirit of lesson study. There is a complex ecology in the routinization of lesson study in schools in Japan where it has been a long tradition for over 100 year. According to Catherine Lewis (2004 &amp;2016) , lesson study looks deceptively simple when in reality, it is a complex process involving changes to be made in teachers' knowledge and beliefs, teachers professional community and teachers' access to instructional materials, tools and routines. This presentation will focus on the challenges in sustaining lesson study and will draw from case studies of schools in Singapore that are early adopters of lesson study. It will provide insight into how Singapore schools are implementing and adapting LS to suit local school needs and contexts and making LS a sustainable process.</p>

	<p><b>Lilya Zhurba, Center of Excellence, Kazakhstan</b></p> <p><b>«Lesson study in Kazakhstan, Center of Excellence project»</b></p> <p>In 2011, under the direction of the Government of Kazakhstan Autonomous Educational organization «Nazarbayev Intellectual schools» set up Centre of Excellence (CoE) to transform teacher in-service education. CoE together with strategic partners, The University of Cambridge Faculty of Education and Cambridge International Examinations, developed a Kazakhstan bespoke multi-level in-service teacher training programme. The objectives were to develop teaching practice which would enable deeper learning in classrooms, inclusion of all children and challenging to constantly improve. This programme started by working with classrooms teachers and then moved on to middle leadership, finally working with senior leader and principals in schools, hence extending leadership of learning at all levels of the school. Lesson study was one of the key strategies introduced to help transform class practice. The presentation will provide information and evidence of how theoretical research knowledge was applied to practice on a large scale throughout Kazakhstan.</p>
--	---

<b>Presentation Code</b>	7B
<b>Title</b>	Lesson Study in Two Professional Learning Communities for Experienced Teachers: Research on Conditions, Process And Effects
<b>Presenter/s</b>	Siebrich de Vries, Maria Vrikki, Carien Bakker and Gerrit Roorda
<b>Affiliations</b>	University of Groningen (The Netherlands)
<b>Type of presentation</b>	Symposium
<b>Strand</b>	Lesson study in different cultural, subject and learning contexts
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Newman Red)
<b>Abstract</b>	<p>This symposium presents Lesson Study (LS) research in the context of two Professional Learning Communities (PLC's), a three-year pilot project (2014–2017) for Dutch as mother tongue and mathematics launched by the Dutch Ministry of Education in the Netherlands. The two PLC's consist of 27 teachers of 12 different secondary schools spread throughout North Netherlands. Each school year two LS cycles take place in LS teams of three or four persons. Teachers are supported by two subject pedagogy teacher educators. Teachers visit each other's schools for observing the research lesson. The general theme of both PLC's is activating and differentiating education, since for many teachers in Dutch secondary education this is problematic (Dutch Schools Inspectorate, 2015). Besides, both PLC's have their own content specific topic. Data are collected by means of questionnaires, interviews and observations in several domains: conditions, LS process and effects. In this symposium, three interrelated papers will be presented. The first on the conditions, in particular the intention of the teacher, the second focuses on the LS process, in particular teachers' adaptations in teaching materials, and the third focuses on the effects on teachers' activating teaching behavior.</p> <p><b>Paper 1:</b> The Development of Teachers' Intentions.</p> <p>In many professional development initiatives all sorts of personal, interpersonal, and conditional factors are insufficiently respected while they might represent major barriers to successful implementation (Kooy &amp; Van Veen, 2012). In this study we focus on the personal factor in the form of teacher's intention. According to the Reasoned Action Approach (REA) (Fishbein, 2008) the best predictor of a behavior is behavioral intention. Applied on LS, the best predictor to carry out LS is the intention to engage in LS. The REA assumes that teacher's intention is a function of attitudes, perceived normative pressure and self-efficacy. The research</p>

	<p>question in this study is how teachers' intention starts and develops during two years. Teachers of both PLC's were interviewed at the start of the PLC and subsequently every year. The interviews were content-analyzed. This resulted in a teacher typology with respect to the intention to engage in LS.</p> <p><b>Paper 2:</b> Teachers' Adaptations of Teaching Materials</p> <p>In the context of the PLC for Dutch as mother tongue, and as part of a prototype phase of an educational design research, 11 mother tongue teachers, organized in three LS teams, adapted supplied teaching materials on perspective taking for their own context during a LS process. Perspective taking is the cognitive capacity to consider the world from another individual's viewpoint. Main research question of this study is what kinds of adaptations do teachers make and which adaptations are most effective? Teachers reported findings in journals and were interviewed afterwards. The effectiveness was measured by means of a pre- and posttest of the Interpersonal Reactivity Index (Davis, 1983) as well as a pupil evaluation questionnaire. The data were analyzed at three levels:</p> <ol style="list-style-type: none"><li>1. Characteristics of the supplied teaching materials;</li><li>2. Each LS team: the implemented adapted teaching materials and teachers' thoughts and reflections for these adaptations;</li><li>3. Each class: the effects of the adapted teaching materials on pupils' perspective taking and their judgments about the quality of the materials.</li></ol> <p>The findings will be used to obtain knowledge of effective ways to enhance perspective taking in Dutch mother tongue classes.</p> <p><b>Paper 3:</b> The Effects on Teachers' Methods to Activate Pupils</p> <p>In the context of the PLC for mathematics, the research question is whether LS affects teachers' methods to activate pupils. Activating teaching is important, because it stimulates pupils to be actively involved in schoolwork (Bolhuis &amp; Voeten, 2001). In this research, we distinguish two aspects of activation: (1) active participation in mathematics lessons, and (2) the cognitive demand of mathematical activities in the lessons. We conducted a multiple case study with four teachers, using a mixed method of observations, pupil questionnaires and interviews. During the past school year, these teachers participated in two LS cycles. We analysed whether self-reported changes in methods to activate pupils could also be observed and confirmed by pupil questionnaires. Preliminary results indicate that in some, but not all, cases LS can help teachers to make their lessons more activating. For these teachers self-reports on changes in activating teaching are confirmed by classroom observations.</p>
--	--

<b>Presentation Code</b>	7Ca
<b>Title</b>	Lesson Study or Coaching? Learning in the Unconscious Classroom
<b>Presenter/s</b>	Ella Michelle O'Doherty, David Allan, David Boorman and Paul Smalley
<b>Affiliations</b>	Edge Hill University (United Kingdom)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Developing Professional Learning Communities: models and practices
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Forum Seminar 1)
<b>Abstract</b>	<p>Lesson Study is said to be 'deceptively simple' (Dudley, 2015:5) and as such is weakly conceptualized (Xu and Pedder, 2015) but it has been clearly defined in the UK context as 'not a coaching process' (Dudley, 2005:6). Why such a claim underpins its development in educational settings in England, whether this can be justified and what the implications are of such differentiation are questions yet to be fully interrogated as the discourses of coaching and lesson study remain distinct. This paper argues such a debate is needed as a means of exploring how, rather than if, lesson study 'works'.</p> <p>Research has shown professional development for teachers in England to be 'rather depressing' (Earley, 2010:482) with limited access to collaborative, classroom based inquiry (Pedder and Opfer, 2011; Coe et al, 2014). Coaching is one such approach but is subject to a 'clash of cultures' between professional development and performance management (Lofthouse et al., 2010:10). The processes of lesson study can be aligned with dialogic co-coaching (Curee, 2005) but distinguished by the observation of pupil learning it has the potential to negotiate the fault lines of professional power relations.</p> <p>The paper reports initial findings from a qualitative enquiry, linked to an EEF funded pilot project which ran from 2013-2016 in three regions of England, data was gathered from semi-structured interviews with 30 teachers in 18 primary schools. Framed as experience centred narrative inquiry this study is interested in both common processes and the individual experience. Practising teachers, from the recently qualified to senior leaders, who reported that lesson study had improved pupil outcomes were asked how and why it 'worked'. Findings suggest that the positioning of lesson study as 'not' coaching is crucial to engagement; giving teachers the freedom to articulate 'not knowing' and learn. The relationship to coaching is more complex than has hitherto been acknowledged and fully understanding the impact of lesson study needs greater recognition of such 'micro-</p>

	<p>political dimensions' (Xu and Pedder, 2015: 49).</p> <p>Teacher narratives indicate that lesson study has meaning as a liminal space, giving access to the 'unconscious classroom' through the emotionally disruptive 'surprise' of how relatively 'unknown' pupils learn. Such 'double loop' learning can be a powerful means of changing the established attitudes and habits of professional practice. We argue therefore that discourses such as evolutionary coaching (Brockbank and McGill, 2006) are a useful theoretical lens to understand the learning processes experienced through lesson study.</p>
--	---

<b>Presentation Code</b>	7Cb
<b>Title</b>	The Implementation of Critical Problem-Based Learning To Improve The Achievement of Learning Outcomes, Writing Skill, And Critical Thinking Skill Of General Biology Students at Department of Biology, Universitas Negeri Malang.
<b>Presenter/s</b>	Endang Suarsini, Hadi Suwono and Masjhudi Masjhudi
<b>Affiliations</b>	Universitas Negeri Malang (Indonesia)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Developing Professional Learning Communities: models and practices
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm ( Forum Seminar 1)
<b>Abstract</b>	General Biology lecture on bilingual class conducted by giving the assignment of preparing a summary of the topics and then presented and discussed. Through the implementation of this learning activity, the results of the initial analysis of the ability of students in scientific writing skills and oral communication was still low. The low two skills is reflected on the meaning and development aspects of the summary that is still in the beginner category (28%) and developing (56%). Just as many (16%) of students were in the category of competent and no students were included in the expert category. A similar picture is also seen in the organizational aspects of writing, language, and writing summaries structure. Observation of the oral communication skills of the students who gave a presentation show that in the aspect of content and delivery of content is included in the novice category. This fact calls for efforts to empower both these skills, in the middle

	of the fact that scientific writing skills and oral communication is an important form of scientific literacy of students mastered in contemporary life. Critical problem Based Learning is a learning strategy that has the potential to improve both the skills. Effectiveness and optimization of the process of learning to apply these strategies to empower scientific writing skills and oral communication students continue to be implemented through Classroom Action Research -based Lesson Study. Increased scientific writing skills and oral communication students and also critical thinking skill and learning outcome presented in this paper.
--	--

<b>Presentation Code</b>	7Cc
<b>Title</b>	Lesson Study as Professional Learning Tool in Professional Learning Communities for Chinese Language Teachers in Singapore
<b>Presenter/s</b>	Siaw Wen Tang, Kwee Hua Lim and Seok Hwa Sim
<b>Affiliations</b>	Ministry of Education (Singapore)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Developing professional learning communities: models and practices
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm ( Forum Seminar 1)
<b>Abstract</b>	<p>Teacher professional learning communities (PLCs) were introduced to schools in Singapore with the aim to improve instructional practice that leads to improved student learning outcomes, promote professional collaboration and professional excellence among teachers, thus fosters a culture of excellence in schools. Lesson Study is adopted by many schools as the professional learning tool to enhance teachers' instructional practice in classroom, and to deepen their pedagogical and content knowledge (PCK) from the process.</p> <p>This paper will present case studies of PLCs in schools adopting lesson study as the professional learning tool for Chinese language teachers, examining the role and effectiveness of adopting lesson study in PLCs for these teachers. Main sources of qualitative data include implementation plans and process structures, post-lesson observation discussions and teachers' reflections. The context and implementation processes will be described, and the positive professional learning outcomes will be discussed, focusing on the deepened PCK gained in teaching of Chinese language and change in mind-sets of Chinese language teachers in these learning communities.</p> <p>Findings and discussions in this paper will be relevant to teachers, instructional leaders, school leaders and academics who are</p>

	interested in adopting lesson study in PLCs for Chinese language teachers.
--	--

<b>Presentation Code</b>	7Da
<b>Title</b>	Towards the Cultivation of a Symbiotic Community for Japanese and Foreign Students: A Case Study of a Junior High School Filipino Student with Japanese Ancestry
<b>Presenter/s</b>	Yoshiko Hanbara and Pauline Anne Therese Mangulabnan
<b>Affiliations</b>	University of Fukui (Japan)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Developing professional learning communities: models and practices
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Forum Seminar 2)
<b>Abstract</b>	<p>Due to globalization, the demographics of foreigners living in Japan have been changing drastically in recent years. Whereas in the past, most foreign workers would come to Japan only for a short period of time, there has been a sharp increase recently in the number of migrants who come to work for longer periods or choose to stay permanently and build a life in Japan. Most of these migrants are of Japanese ancestry. It is thus of urgent importance to consider how to create a society where Japanese and foreigners can live harmoniously together. In its goal of building a mutually beneficial environment, Japanese immigration policy should be based primarily on helping foreigners adjust to Japan, particularly on their children's education. While it is important to give high regard to foreign students' cultural and language background in creating a better school environment for them, many schools still lack sufficient knowledge on how this can be achieved. To date, research on this field is very limited. Such situation still poses many difficulties and challenges for foreign students in spite of diversification intentions in schools. Thus, there is a pressing demand to link school and community to provide a better learning environment for minority students in Japan.</p> <p>This case study is focused on the transition adjustment and learning journey of a Filipino minority student with Japanese ancestry and little Japanese background who was enrolled in a junior high school in Fukui. Together with other Filipinos and Brazilian students, she had participated in the weekly one-hour support for eighteen months provided by a team composed of university professor, foreign student and Japanese university students from University of Fukui. This research reports an analysis of (1) how the learning</p>

	community network was naturally cultivated to support the education of the student, (2) the factors affecting the student's progress and difficulties from junior high school until her transition to senior high school, and (3) holistic growth and adjustment of the student focusing on the significant effect of her newly found social circle which improved her academic standing and decision to pursue education. Moreover, this research discusses positive effects towards the team's professional capitals. The network of intertwined human interactions may shed light in understanding and cultivating a more symbiotic community in schools for minority groups in school and teachers.
--	---

<b>Presentation Code</b>	7Db
<b>Title</b>	Teacher Development in Community Constellations
<b>Presenter/s</b>	Mai Kishino
<b>Affiliations</b>	University of Fukui
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Developing professional learning communities: models and practices
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Forum Seminar 2)
<b>Abstract</b>	<p>An individual's capacity to achieve goals, work effectively with others, and manage emotions is essential for meeting the challenges of the 21st century (OECD, 2015). To enhance the quality of learning, teachers must create lessons in which students try to solve problems collaboratively. Such new educational practices cannot be achieved without teachers' reflecting on their practice (Schön, 1983). The purpose of this study is to illuminate how teachers reflect on their practice within their communities.</p> <p>A case study method was used. The participant was a teacher in a small elementary school; he was in his 40s, and held the position of coordinator of "lesson study", when teachers observe each other's lessons and discuss teaching and learning. He was also a graduate student whose practical research I supported by participating in lesson studies as a collaborative researcher. Data included my field notes and the teacher's practical report.</p> <p>The teacher taught grades 5 and 6 over a 2-year period. During this period, he transformed his lessons into ones in which students solved problems collaboratively. The students' relationships also shifted from an initial focus on division of labor to greater emphasis on joint thinking and mutual respect.</p> <p>Three factors were involved in these changes. The first was a restructuring of the teacher's beliefs about learning as a result of</p>

	<p>my reviews of his hour-long lessons and his observation of other schools. He came to view the curriculum from a longer-term perspective and to reflect on his role as coordinator and facilitator. The second factor was multi-layered reflection over time. Once each half-year, he reviewed his own practice, wrote about it, and discussed it with others. From this process, he identified a meaningful path for developing the classroom community. The third factor was the role of the school as a place of reflection. As the coordinator of lesson study, he changed the form of discussion and moved the focus of discussion away from teachers' surface behavior, emphasizing instead how students learned in groups and where they succeeded or failed. Teachers came to feel that lesson study was exciting.</p> <p>I propose that the constellation of three communities encouraged the teacher's reflection: the graduate school community, the classroom community, and the community of teachers. Graduate school instilled a pattern of sustained reflection. This process inspired changes in his behavior and perspective, with classroom communications and relationships changing in response to his reflectivity. At the same time, teachers at his school moved toward greater collaborative inquiry.</p>
--	--

<b>Presentation Code</b>	7Ea
<b>Title</b>	“Way of Seeing” in Teacher Professional Growth: A Case of School Based Continuing Professional Development through Lesson Study in Zambia
<b>Presenter/s</b>	Benson Banda, Kazuyoshi Nakai and Edward Tindi
<b>Affiliations</b>	Ministry of General Education (Zambia)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Leadership, management and policy aspects of lesson study
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Peter Chalk 2: 1.4-1.6)
<b>Abstract</b>	World over, debates in the education sector have moved from quantitative to qualitative in terms of delivery and outcome aspects. To this effect, discussions on teacher and quality of teaching & learning are taking center stage in teaching voyage. Zambia, unfortunately, has not been performing well in national and regional educational assessments of learning. In an effort to improve quality of education, Zambia, in 2013, introduced a new curriculum which has shifted from positivist to constructivist frame

	<p>of teaching and learning. In Zambia, efforts to address the quality of education delivery from the teacher's perspective are being conducted using a School Program of In-service for the Term - School Based Continuing Professional Development (SPRINT - SBCPD) through Lesson Study. Against such concerns arises the need to identify how teacher professional growth through SPRINT policies and practices are taking place in Zambia. In the "Way of Seeing", this paper discusses the way in which teachers and teacher educators that support the learning reflux in the journey of teacher professional growth with focus on policy and practices. To this effect, research was conducted to get insights on the characteristics that enhance or hinder Teacher Professional Growth through SPRINT (SBCPD through lesson study) System in Zambia. The research was guided by the theme question; "what are the characteristics of the SPRINT (SBCPD through lesson study) System in Zambia?" In doing so, SPRINT SBCPD Lesson Study Practice were observed and analyzed. The School In-service Record (SIR) books were analyzed from across the country. Also lesson plans, process observation, analysis including face to face discussions were conducted with the help of videos and still photos. Through analysis of SPRINT policy and practices, the results show that there were varied lenses used by both teachers and teacher educators in understanding the demands of the policy and the practices thereof. These dynamics create variances in viewing "effective or good lessons" which in turn affect the quality of learning. The policy which has now been there for a decade was still acceptable; however, the misunderstanding on its implementation affected the quality of practices in the TPG continuum. The implication is that there is need for change on the "way of seeing" by teachers and teachers support structures for quality learning to be achieved in Zambian classrooms.</p>
--	---

<b>Presentation Code</b>	7Eb
<b>Title</b>	Research on The Roles of a Head Teacher for School-Based Curriculum Development in Japanese Schools: Based on the Theories on Curriculum Leadership.
<b>Presenter/s</b>	Toshiyuki Kihara and Nozomi Shimada
<b>Affiliations</b>	Osaka Kyoiku University (Japan)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Leadership, management and policy aspects of Lesson Study
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Peter Chalk 2: 1.4-1.6)
<b>Abstract</b>	In recent years, in Japan, School-based curriculum development (SBCD) is regarded so much important for pupil achievement,

	<p>school innovation and so on. It is taken for granted that professional learning of teachers including lesson studies is indispensable to successful and sustainable SBCD. Head teachers in Japan and other countries play crucial roles for professional learning in schools. As a consequence, fruitful SBCD is accompanied with the excellent leadership of head teachers. It is conceptualized as “curriculum leadership” (Brubaker 2004, Henderson &amp; Gornik 2007, Glatthorn et al. 2007, Mullen 2007). However, the role of head teachers for SBCD is still unknown.</p> <p>So in this study, the authors aimed to clarify the roles of a head teacher for SBCD in Japanese primary and secondary schools. To pursue the objective, the authors interviewed 2 primary and 1 secondary head teachers about their actions for SBCD in spring 2015. They had tried to develop special curriculum of disaster prevention education, career education and so on in their schools for more than 3 years.</p> <p>At first, in each case, the authors extracted the head teacher’s actions from his/her comments about SBCD and grouped them into 4 categories of the model of curriculum leadership group by Kihara, Yano &amp; Mori (2013). They are 1) making the special plan for the SBCD in collaboration with teachers, 2) preparing and using resources for SBCD, 3) producing teachers’ culture of learning mutually, and 4) helping teachers acquire theories and models of curriculum and instruction. Next, after grouping their actions, the author compared them between in the first year and in the other years. Finally, the author compared above results among 3 cases to grasp common features of the roles of head teachers for SBCD. Data indicated that all head teachers were engaged in many kinds of actions categorized in above roles in the first year of SBCD. In contrast, every head teacher played fewer roles for SBCD in other years.</p> <p>In conclusion, head teachers tend to play not only managerial but also practical roles in the first year of SBCD. In other words, taking charge of the management for SBCD, head teachers tentatively show such practical leadership for SBCD as teacher leaders do.</p>
--	---

<b>Presentation Code</b>	7Ec
<b>Title</b>	Lesson Study in Bangladesh: Follow-Up Study to Inform Decision-Making in the Post-Dissemination Phase
<b>Presenter/s</b>	Akiko Nakano and Dipti Das
<b>Affiliations</b>	PADECO Co., Ltd.(Japan)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Leadership, management and policy aspects of lesson study
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Peter Chalk 2: 1.4-1.6)

<b>Abstract</b>	<p>Lesson Study was first introduced in Bangladesh in 2004 through JICA technical assistance during the development of primary school teacher's guides in math and science. Initially, it was piloted in just 5 schools, but the results were recognized by the Government of Bangladesh's sector-wide program, the Third Primary Education Development Program (PEDP3), and the Lesson Study approach was incorporated into the Teacher Education Development Action Plan (TED Plan). Under the TED Plan, local education officers, head teachers, and teachers in primary schools throughout Bangladesh will receive orientation training on Lesson Study by the end of PEDP3 in 2017. Additionally, the JICA team has been conducting school monitoring activities through which further technical support is provided to schools in implementing Lesson Study. Through the monitoring activities it was found that the number of times schools conducted Lesson Study varied greatly among schools since there is no policy in place which requires them to conduct Lesson Study; leaving it up to the school's own initiative to organize Lesson Study. Furthermore, in general there is a lack of both subject and pedagogical content knowledge among teachers, making it difficult to provide suggestions on how to improve the lessons. Schools have grasped the process of conducting Lesson Study through the orientation training, so in the post-dissemination phase, there is a need to focus on: (a) creating an environment for schools which is conducive for conducting Lesson Study, and (b) fostering local resource-persons who can provide technical input to improve the lessons. This paper aims to identify what kinds of approaches would be effective for schools to conduct and sustain the implementation of Lesson Study, as well as explore the feasibility of local education officers in taking on the role of "local resource-persons" for Lesson Study. The JICA team will conduct a follow-up study through phone interviews and semi-structured group interviews with head teachers, teachers, school management committee members and local education officers that previously participated in our school monitoring activities to find out the current situation of Lesson Study in the schools. More specifically, we will examine how schools are implementing Lesson Study, the existing and potential involvement of local education officers in Lesson Study, and what resources are still needed. The findings from the study can be used to inform not only decision-makers in Bangladesh but other countries as they consider actions to take during the post-dissemination phase so that Lesson Study can effectively contribute to improving the quality of education in schools.</p>
-----------------	--

<b>Presentation Code</b>	7Fa
<b>Title</b>	Does Emotion Recognition and Empathy Skills Variate in Age among Turkish Primary School Children?
<b>Presenter/s</b>	Kerem Coskun and Meral Coskun
<b>Affiliations</b>	Artvin Coruh University (Turkey)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Learning studies
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Newman Purple)
<b>Abstract</b>	<p>Development is a multifaceted phenomenon and not restricted to cognitive aspects. Socio-emotional development is another aspect of human development. Socio-emotional skills refer to possession of the ability to process emotional information in self and in others, the ability to employ this information, to regulate and manage in thinking and behavior (Mayer, Salovey, &amp; Caruso, 2008). Emotion recognition and empathy are one of the socio-emotional skills. Emotion recognition includes the ability accurately to recognize emotions in others and self (Nowicki &amp; Duke, 2001). Empathy is a socio-emotional skill to perceive, understand emotions in others and respond accordingly. The present study sought out the relationship between both of the concepts so it was designed in correlational study. Convenience sampling was employed and sample of the study included 114 Turkish primary school children whose ages range from 7 to 10. Social-emotional skills of the participant children were measured through Facial Emotion Recognition &amp; Empathy Test, which was developed by Coskun (in review). Data was analyzed through the Spearman-Brown correlation coefficient and linear regression. Results of the research revealed that correlation coefficient between age and emotion recognition and empathy skills is .56. It was found out that linear regression model explains .35 of the variance between the variables. Effect size of the age on emotion recognition and empathy skills (standardized B coefficient) was found as .59 that implies very close to strong effect size (Cohen, 1988). Furthermore, age increases by one year, emotion recognition and empathy skills rises by 1.23 points in Facial Emotion Recognition &amp; Empathy Test. Results of the research are going to be discussed in the light of the relevant literature.</p>

<b>Presentation Code</b>	7Fb
<b>Title</b>	Experiences from Performing Learning Studies in Computer Science based on Variation Theory using Digital Collaboration Tools and Meetings Online.
<b>Presenter/s</b>	Johan Kellen, Markus Tångring, André Jaoui and Stefan Engval
<b>Affiliations</b>	Linköpings kommun (Sweden)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Learning studies
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Newman Purple)
<b>Abstract</b>	The municipality of Linköping, Sweden, successfully uses Learning Study to improve teacher quality and teacher competence. It can, however, be difficult find participants for a Learning Study in subjects such as Computer Science at Upper Secondary level. Overcoming this challenge by meeting online instead of in person our Learning Study group is comprised of four teachers from separate schools located in Linköping, Mjölby and Stockholm. There has been a series of lectures laying the foundation for Learning Study and Variation Theory, led by Anja Thorsten PhD, where the group has met in person but the main body of work has been done online. During the course of two semesters the group conducted two Learning Studies based on applying Variation Theory to teaching Computer Science. The Learning Objects of the studies were the concepts of iteration, a core concept in Computer Science and programming, respectively commenting, an often neglected part of teaching programming. The group took a perhaps less travelled route in approaching teaching iteration and commenting as the angle of approach was to create understanding at the conceptual level before introducing code and by using analogue exercises and analogies for the concepts. During the presentation we will present experiences and lessons learned of mainly collaborating by digital means and the tools we used, of using Variation Theory in programming and of not starting with code in teaching programming.

<b>Presentation Code</b>	7Fc
<b>Title</b>	Investigating Classroom Cultures in Japanese Elementary School Through an Analysis of Bansho (Board Writing)

<b>Presenter/s</b>	Shir Ley Tan
<b>Affiliations</b>	Nagoya University (Japan)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Learning studies
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Newman Purple)
<b>Abstract</b>	<p>Japanese lesson study (LS) has attracted growing interest from researchers and educators outside Japan, as an alternative to conventional teacher professional development. In order to adapt LS into different contexts, it is vital to understand features of LS in its native context. One of the most recurring themes in LS is the effective use of blackboard (Shimizu, 2007; Stigler &amp; Hiebert, 1999; Takahashi, 2006; Yoshida, 2010). The significance of chalkboard in a Japanese classroom is proven with a technical term coined for its usage- bansho (board writing) and has gained attention as a unique teaching technique of Japan worldwide (Kusrini, 2009; Literacy and Numeracy Secretariat, 2010; Yoshida; 2010). Bansho is considered a critical classroom practice in Japan and therefore it has been refined over a period of years through the use of Japanese LS (Ermeling &amp; Graft-Ermeling, 2014). Blackboard is used for more than its primitive function of displaying information; it is skillfully organized to help learners see the flow of the lesson and to model organized thinking. In other words, bansho is not merely a visual aid preference but a deliberate choice and thoughtful decision by teachers. With the gained prominence of LS, its significant aspect of bansho is deemed to be worth analyzing. While research on bansho has always focused on its effectiveness as a teaching method, bansho should be explicated as an aspect of LS that is inherent to Japanese culture to guide the adaptation of LS in other contexts. With that, the study aimed to rediscover the functions of bansho in an actual lesson in a primary school. The lesson was observed, video-taped, and later transcribed into a lesson transcript. The lesson transcript was read, re-read while important elements were highlighted and subsequently explored in relation to bansho. Analysis revealed that bansho in the study has two main functions, namely learning and cultural functions. Bansho was found to possess learning function, as a ba (space) that allows visualization and intersection of pupils' ideas. Cultural function of bansho is evidenced by pupils' ideas treated as basic equals on bansho. Subsequently, learning occurs with pupils' individuality in thinking is maintained in a collaborative way, through the process of negotiation and knowledge construction which is sustained by the use of bansho. Lastly, through a detailed examination of bansho, it could be said that, social constructivism exists as a fundamental part of the classroom cultures with active involvement from pupils in their own process of learning.</p>

<b>Presentation Code</b>	7Ga
<b>Title</b>	Empowering students' critical thinking through the implementation of lesson study
<b>Presenter/s</b>	Atti Herawati
<b>Affiliations</b>	Pakuan University
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Impact of lesson study on student learning
<b>Time/Location</b>	Saturday 3 <sup>rd</sup> September 13:00-14:30pm (Peter Chalk 3: 2.1-1.3)
<b>Abstract</b>	Critical thinking is one of the aspects that needs to be strengthened in the learning process. Thus, Lesson Study is implemented to empower students' critical thinking, which was conducted in 'Theory of English for Children' class in four different groups, in four cycles consisting of 'Plan, Do, See'. In 'Plan' stage, the team discusses the problems the students have and plans the action. In 'Do' stage the lecturer model does what has been planned and the learning process was observed by the team. In 'See' stage the lecturer model and the team reflect the learning process that has been done. In this stage they discuss the findings. The topic of the Open Lesson is "Teaching Spoken English to Children" and the material source is some videos of teaching practice. The team provides observation sheet consisting of some questions related to the topic of discussion. The first cycle shows that students' critical thinking has not clearly been seen; only a few students respond the questions addressed by the lecturer as well as answer the questions in the observation sheet. In the second cycle, the number of questions in the observation sheet decreased. The students started to critically analyze the problem and to share their thought, but they still found problems in answering the question in the observation sheet. In the third cycle, more students participate in sharing their thought, but their opinion has not touched the main problem yet. In the fourth cycle, the team divides the questions into two categories and simplifies them. Besides, the students get the written guiding questions of the things they have to focus on while watching the video of teaching practice. The result of the fourth cycle shows that students' critical thinking can be empowered when the lecturer facilitates them with written guiding questions and simple observation guideline to focus on the topic of

	discussion, which is developed through the implementation of Lesson Study.
--	--

<b>Presentation Code</b>	7Gb
<b>Title</b>	Promoting Deeper Learning - Lesson Study at The Beacon School
<b>Presenter/s</b>	Richard Johnson, Felicity Tetley and Tessa Hubble
<b>Affiliations</b>	The Beacon CE Primary School (United Kingdom)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Impact of lesson study on student learning
<b>Time/ Location</b>	Saturday 3 <sup>rd</sup> September 13:00-14:30pm (Peter Chalk 3: 2.1-1.3)
<b>Abstract</b>	<p>Background to the topic</p> <p>Between 2013 and 2015, we took part in a Lesson Study research project with Edge Hill University, UK. Edge Hill funded lesson study cycles in school across three years and tracked the outcomes for children.</p> <p>Research questions/focus of the enquiry</p> <p>Within our lesson study cycles, we chose to focus on children whose reasons for below expectations progress were unclear. Through the lesson study cycles, we unpicked those children's barriers to learning and formed wider conclusions, helping support the learning of both the focus children and others with their learning characteristics.</p> <p>Research methods and/or mapping of the literature</p> <p>One of our cycles focused on a year 6 girl. She was a reluctant participant in Maths through a lack of confidence and, in partner work, would take a passive approach – allowing her partner to complete the work for her rather than taking part in the task in equal measure with her partner. We also focused on a reception child and looked at how we could deepen her learning and pattern spotting in Maths.</p> <p>Analytical and/or theoretical framework</p> <p>As part of the Edge Hill University project, we built our knowledge of talk for learning and integrated this as a vital part of the project. At the same time, we looked at talk for learning through Mike Hughes' Magenta Principles and the BLP Learning Powered Mind which looks at resilience, resourcefulness, reflectiveness and reciprocity as key tools for learning.</p>

	<p>Research findings and/or contribution to knowledge</p> <p>We found that a combination of visual prompts, children's talk and rich tasks combined to create deep learning. Combing good talk and visual prompts built neural pathways; rich tasks and visual prompts took the lid off learning – allowing all children to access the task – and talk, combined with visual prompts, meant the children made deep connections (See attached diagram). In our first case study, we found the choice of partner (Talk) vital as putting the case study child with another passive child forced both children to engage fully in the task. In the second case study, we used Cuisenaire rods (Visual Prompts) as a resource that led her to discovering square numbers by making squares with the rods – a pattern she can recall and understand a year later.</p>
--	--

<b>Presentation Code</b>	7Ha
<b>Title</b>	A Research Project to Investigate if the Current Lesson Study Model can be Enhanced through the Use of Technology
<b>Presenter/s</b>	Gill Jordan and Matt Richardson
<b>Affiliations</b>	Professional Learning Associates (United Kingdom)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Innovative uses of lesson study
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Newman Green)
<b>Abstract</b>	<p>This paper will report on a small-scale project designed to investigate the use of technology in Lesson Study. Iris Connect will be used as the platform to capture Research Lessons, interviews with case study pupils and to enable teachers to provide contextualised feedback in post lesson discussions.</p> <p>Four schools are involved in the project, two of which have previously been involved in a Lesson Study project. All have some experience of using Iris Connect but not within Lesson Study.</p> <p>For the purposes of this project, it was decided to focus on a specific area of the curriculum, namely 'Grammar within Writing', as it is considered a priority for all four schools.</p> <p>We will measure success of the programme by evaluating two strands:</p> <ol style="list-style-type: none"> <li>1. The progress made by the case pupils over the period of one term against their expected progress;</li> </ol>

	<p>2. Teacher experience through interview.</p> <p>Professional development and on-going support will be provided by the authors. An initial training session will be held before the start of the project, to be followed by an interim meeting after Cycle 1 has been completed. A final meeting will be held at the end of the project, where the findings will be considered and further action planned.</p> <p>The schools will carry out at least two Lesson Study cycles.</p>
--	--

<b>Presentation Code</b>	7Hb
<b>Title</b>	Cultivating professional capital through a systematic approach to networked teacher inquiry, collective video analysis and professional dialogue
<b>Presenter/s</b>	Christophe Mullings
<b>Affiliations</b>	IRIS Connect (United Kingdom)
<b>Type of presentation</b>	Workshop
<b>Strand</b>	Developing professional learning communities: models and practices
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Newman Green)
<b>Abstract</b>	<p>“You know you are in a good school when teachers talk to teachers about teaching.” (Judith Little)</p> <p>This interactive workshop focuses on the importance of developing professional learning cultures and the models and practices that can be used to support this. IRIS Connect is a professional development system that uses video as a tool. The system is used in over 1,700 schools, colleges and universities across 15 countries worldwide and enables teachers to reflect on, analyse and share practice in a secure, permission-based environment that is organic and responsive.</p> <p>The IRIS Connect platform enhances collaboration and practices such as Lesson Study by:</p> <ul style="list-style-type: none"> <li>• Being fully cloud-based</li> <li>• Enabling time-linked comments</li> <li>• Offering tools for analysis and research</li> <li>• Facilitating the joining and creation of area-focused collaborative online learning spaces</li> </ul> <p>This workshop will note the research and theoretical frameworks</p>

	<p>that underpin the design of IRIS Connect. It will also reference research projects from the UK, USA and Europe that have used IRIS Connect both as a tool in, and as the subject of, research.</p> <p>In particular, this session will focus on the merits of using video for collective analysis and professional dialogue. As part of their involvement with an EEF funded project, IRIS Connect have developed 'Film Club' as a vehicle for change management and as a way of cultivating teacher-led professional learning communities .</p> <p>Research has shown that to have an impact on classroom practice, professional learning is most effective when it is based within a framework that includes: access to theory; self-reflection; low risk feedback; collaborative exploration, coaching or peer review. This workshop invites you to explore how these components can be effectively supported and accessed through practical use of video technology. You will see how the intelligent use of video can stimulate school-based research projects, discussion, debate and analysis. You will be encouraged to discuss, debate and collaborate with your colleagues through a 'real life' film club. You will also learn more about the IRIS Connect system through your involvement in this interactive workshop. We provide the popcorn and you provide your powers of analysis!</p>
--	--

<b>Presentation Code</b>	7la
<b>Title</b>	Prospective Teachers' Noticing of Students' Scientific Thinking during Lesson Study
<b>Presenter/s</b>	Sharon Dotger, Mary Bearland and Kevin Moquin
<b>Affiliations</b>	Syracuse University (United States of America)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Further and Higher Education
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Queen's Lecture Theatre 2)
<b>Abstract</b>	This study reports on prospective teachers' learning about science content and pedagogy from lesson study participation within an elementary science methods course in the United States. In teams, prospective teachers co-designed five consecutive lessons. Each lesson was taught by one team member, observed by teammates and teacher educators, and followed by a post-lesson discussion.

<b>Presentation Code</b>	7lb
<b>Title</b>	What is the Nature of Facilitator Intervention in a High School Lesson Study Project in Physics?
<b>Presenter/s</b>	Daniel Martin and Yves Debernardi
<b>Affiliations</b>	University of Teacher Education (Switzerland)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Further and Higher Education
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm ( Queen's Lecture Theatre 2)
<b>Abstract</b>	<p>The aim of our paper is to understand the nature of facilitator intervention in a high school lesson study project in physics teaching. Firstly, we analysed interventions by two facilitators they teamed up to elaborate, analyze and revise a research-oriented lesson for several sessions. Secondly, we determined if both facilitators' background affected the nature of these interventions. Thirdly, we analyzed how the facilitators' interventions evolved during the sessions. We conducted a year-long lesson study project from 2015-2016 in a high school in Lausanne, French-speaking Switzerland. In the framework of our project, six participants created, developed, analyzed and revised a research-oriented lesson in physics on voltage. The participants were 6 physics teachers and 2 facilitators of different backgrounds. Indeed, one of the facilitator plays the of a physics teacher and a teacher educator at the University of Teacher Education in Lausanne, State of Vaud. The second facilitator is also a teacher educator in the same institute. Although he is a senior researcher in Education, he is not an expert in physics. His field of expertise is related to the link between the processes of learning and teaching in the scholastic context. Apart from him, the remaining participants and the other facilitator are experienced physics teachers and they worked previously as senior scientists. To build our theoretical framework, we did a literature review on facilitator intervention and a discourse analysis of both facilitators' comments. For this, we consulted the transcription database of sessions allotted to preparation, analysis and revision of the research-oriented lesson. We took into account four dimensions in order to analyze facilitators' interventions, These included form which concerns questions, suggestions, comments, interpretations, teaching prescriptions, disciplinary content such as concepts, teacher intervention, pupils' intervention and frequency of their assignments, tasks they were allotted, as well as follow-up activities. The implications of our work is three-fold. We focused our attention on the topic of facilitator intervention which has received little attention so far. To do this, we characterized the various facilitator interventions and suggested possible</p>

	consequences to improve the way lesson studies are conducted.
--	---

<b>Presentation Code</b>	7Ja
<b>Title</b>	Implementing a Lesson Study on the teaching and learning of ESL for French and Swiss elementary French-speaking students: a way for student teachers to acquire teaching skills?
<b>Presenter/s</b>	Brigitte Gruson and Mylène Ducrey-Monnier
<b>Affiliations</b>	Université de Bretagne Occidentale (France)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Creating knowledge in practice; action research and other practice based research approaches
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Newman blue)
<b>Abstract</b>	<p>Our presentation is based upon a collaborative research project initiated by two training institutions for primary education, the High Pedagogical School (HEP) of the Vaud Canton in Lausanne (Switzerland) and the High School of Education (ESPE) in Rennes, (France). The research group was made up of six student teachers and two trainer/researchers from each institution. The aim of the research has been to conduct a lesson study in order to design, implement, analyse and improve (Murata, 2011; Dudley, 2015) an English lesson for elementary level francophone students. The lesson study designed by the group includes an oral communication activity conducted in pairs, based on an information gap (pairwork activity). Gruson's study (2006, 2007) highlighted a number of specific conditions pairwork situations have to meet if they are to encourage learning for all students: in particular the fact that the language content and documents used must be carefully analysed and selected. This work also showed that the demonstration techniques used by the teachers and the analyses of the students' oral productions play a crucial role in lesson effectiveness. We have chosen to develop a lesson study building on benefits for initial teacher education demonstrated by previous research. For example, it has been demonstrated that lesson studies contribute to improvements in didactic knowledge and better understanding of learning processes (Fernandez, 2005, Dudley, 2011), the development of an investigative approach and a more reflective attitude towards practice (Andrew, 2011, Fernandez, 2005), and improved the link between theory and practice (Runesson, 2015, Martin &amp; Clerc, 2015). The lesson study was designed to fit with the way training was organized in the two institutions and the</p>

constraints of the research project. As not all lessons could be observed directly by all members of the group, some were videotaped. The research group designed a typical lesson, adapted to the context of the various classes in which it was implemented by the student teachers in France and Switzerland. At the end of the process (June 2016), the corpus of data will include video recordings of preparation and analysis sessions conducted by the group and video recordings of the first and last lessons. Based on these data, we will be able to demonstrate the changes which occurred during the process to increase the efficiency and benefit of the pairwork activity for all students and we will also be able to identify factors that may encourage such changes. The lesson study allowed the student teachers involved to develop their professional knowledge and skills and to understand its benefits for their students' learning.

<b>Presentation Code</b>	7Jb
<b>Title</b>	Promoting students' Engagement and Understanding of the Concept of Measurement: An Action Research on the Effectiveness of the TPACK Framework
<b>Presenter/s</b>	Sallimah Salleh
<b>Affiliations</b>	Universiti Brunei Darussalam
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Creating knowledge in practice; action research and other practice based research approaches
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Newman Blue)
<b>Abstract</b>	<p>The twentieth century curriculum calls for teachers to be innovative and creative in their delivery of the science content. This action research focuses on promoting students' engagement and conceptual understanding through the implementation of lessons that are planned and designed using a framework that integrates teacher content knowledge (CK), pedagogical knowledge (PK) and technological knowledge (TK) into Technological, Pedagogical and Content Knowledge (TPACK) working at the four levels of knowledge dimensions: declarative (knowing what); procedural (knowing how); schematic (how why), and strategic (knowing when and where). This study attempted to verify the effectiveness of the TPACK framework in improving students' engagement in science learning and promoting their conceptual understanding of the concept of measurement. Four action cycles of planning, acting and reflecting by the teachers have been conducted for each level of knowledge dimensions. Based on Vygotsky's Zone of Proximal Development, the lessons were planned using the TPACK framework to engage students actively by using technology-enhanced (TK), inquire-based-learning (pedagogy) to promote their understanding of the concept of measurement (CK) through the scaffolding of knowledge dimensions from declarative, procedural, schematic, to strategic knowledge. The study showed that Year 7 (aged 11 to 12 years old) students are actively engaged in discussion and practical work at the declarative and procedural level, and their understanding of the concepts of measurement significantly changed after each action cycle. Although students are observed to be more engaged in designing practical activities at the schematic and strategic levels respectively, their application of the concept of measurement did not show significant changes after the third and fourth action cycles.</p>

<b>Presentation Code</b>	7Jc
<b>Title</b>	Enhancing Primary One Chinese Language Oracy with Self-created Poker Cards
<b>Presenter/s</b>	Fuei Er Toh and Soo Shan Wong
<b>Affiliations</b>	Zhenghua Primary School (Singapore)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Creating knowledge in practice; action research and other practice based research approaches
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Newman Blue)
<b>Abstract</b>	<p>For the past few years, we have observed that most of the Primary One students in Singapore have been facing difficulties in producing error-free, complete sentences when communicating in Mandarin. To identify the students' gaps in their oral skills so as to address the difficulties, a team of teachers from Zhenghua Primary School designed a pre-test focusing on the different aspects of oral skills. Based on the results collected from the pre-tests conducted on our six Primary One classes, we identified the two main learning gaps. Firstly, students spoke very softly, sometimes inaudible, in incomplete sentences. Secondly, there was a mixture of Mandarin with English words used when communicating and the sentences also had apparent grammatical errors. These two findings indicated that the children did not have a wide range of Mandarin vocabulary that they could use and they were consistently doing literal translation from English to Mandarin when communicating in Mandarin. It also led to students not being confident in using Mandarin as a language for communication. With the insight obtained from the pre-tests and knowing that children learn best through activities that they are interested in, we designed a lesson using poker cards to arouse the students' interest to learn. During the delivery of lesson using poker cards, teachers emphasized on the use of correct sentence structure. During the lesson, students were highly engaged in the poker card game activity and they participated actively in their class assignments. The activities boosted students' confidence in using Mandain. It was evident that they spoke more audibly and made fewer errors when constructing sentences. Parents also gave feedback that their children enjoyed the home assignments (poker card game) and that their children had applied what they had learnt during the lessons in their daily conversations. Comparing the results between the pre-tests and the post-tests, we concluded that this approach had proven effective in incremental and measurable terms. The students' confidence level in using Mandarin had also increased. &lt;BR&gt;We, therefore, are able to conclude that, using lesson study process, we have successfully increased the level of confidence and competency of students to speak Mandarin fluently.</p>

<b>Presentation Code</b>	7Ka
<b>Title</b>	Mediation of Teachers' Learning through Talk within a Professional Learning Community: A Case Study in Cyprus.
<b>Presenter/s</b>	Christina Chinas
<b>Affiliations</b>	Open University (Cyprus)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Developing professional learning communities: models and practices
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Peter Chalk 1: 1.1-1.3)
<b>Abstract</b>	<p>This research addresses the mediation of teachers' learning through talk with the use of the Lesson Study approach. I considered the interactive processes through which five groups of teachers from three different primary schools in Cyprus collaboratively developed and constructed new and critical insights into their classroom practices as a basis for changing those practices. The qualitative analyses revealed: a) the different processes and conditions which facilitated the course of learning, b) the kinds of talk teachers used to express their thinking, and c) the way talk facilitated the building up of common knowledge and the development of new professional knowledge. The quantitative analysis helped discover the association of teachers' learning with the different kinds of talk and types of knowledge in Lesson Study conditions.</p> <p>Specifically, I examined the following research questions:</p> <ol style="list-style-type: none"> <li>1. What are the processes and conditions of collaboration through which Cypriot teachers learn in collaborative settings?</li> <li>2. What kinds of talk characterize Cypriot teachers' collaboration within a professional learning community?</li> <li>3. In what ways are do different types of knowledge developed and exchanged within teachers' group while collaborating and what kinds of talk are useful for supporting teachers' collaborative learning?</li> </ol> <p>A mixed-method multiple case study approach is used and socio-cultural discourse analysis strategies. The different methods are: lesson study planning and evaluation meeting (observations, post-meeting teachers' interviews and diaries); classroom lesson observation, teacher's and pupils' interviews. Before leaving fieldwork general interviews were conducted with the teachers. Also, I collected documentations and kept a journal during the development of the fieldwork. This research contributes in understanding how effective collaboration can be more reliably achieved and describe how effective teaching classroom-based practices can arise. Different kinds of teachers' talk were used</p>

during their joint work. These were identified and described in order to explain the way teachers shared common and new professional knowledge and to present the way they developed their professional learning within their schools.

<b>Presentation Code</b>	7Kb
<b>Title</b>	The Structure and Characteristics of Teacher Professional Learning Community: Case in Mainland of China
<b>Presenter/s</b>	Huan Song
<b>Affiliations</b>	Beijing Normal University
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Developing professional learning communities: models and practices
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Peter Chalk 1: 1.1-1.3)
<b>Abstract</b>	<p>With the advent of a transitional era, the field of education is likewise undergoing a global reform. However, in retrospect of the educational reforms launched by various countries in the past thirty years, the aspect of class teaching is seldom touched upon. Academia therefore gives increasing emphasis on teachers as well as teachers' communities, and the concept of professional learning community thus comes into being. In recent years, the studies on professional learning community have proliferated in the west, and are gradually introduced into our country, but the related empirical studies in China still remain a virgin land.</p> <p>Mixed methods are adopted in this research, in which the questionnaires are delivered in three cities (including Shanghai) of mainland China in order to know the features and the realization of professional learning community in primary schools in Shanghai. It is then followed by a purposeful sampling on the basis of the data analysis from the questionnaires, and four schools will be chosen as the cases to probe into the relationship between professional learning community and teacher development. The major methods for the data collection include questionnaire survey, in-depth interview, participant observation and document collection.</p> <p>Based on the result revealed from the questionnaire survey and data from the case studies, it is found that professional learning community, as an introduced concept from the west, has its local significance in primary schools in the three cities of mainland China, supporting the theoretical structure built by the following four professional learning community dimensions—Shared decision making; Shared sense of purpose and focus on student learning; collaborative activity and deprivatized practice; Staff support and cooperation. The features of the abovementioned dimensions also possess their local flavor: a degree of the shared decision making is relatively low and the teachers rarely participate in the financial and personnel decision-making, but own more authority within their professional field; secondly, students' exam scores are more emphasized in the aspect of the focus on student learning, but this varies from the schools according to its realization of professional</p>

	learning community; thirdly, as for collaborative activity and deprivatized practice, collaboration among teaching practice are bolstered by the traditional “teaching research system”, nevertheless there is a gap between the system and the actual outcome of the activities; lastly, the uniform teaching research system, to some extent, provides teachers’ cooperation with much support, but is outweighed by the collaborative culture among teachers.
--	--

<b>Presentation Code</b>	7Kc
<b>Title</b>	Using Focused Questioning to Enhance Physical Education Teachers’ Capabilities
<b>Presenter/s</b>	Eileen Phua and Long Xin Cheong
<b>Affiliations</b>	Haig Girls' School (Ministry of Education – Singapore)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Developing professional learning communities: models and practices
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Peter Chalk 1: 1.1-1.3)
<b>Abstract</b>	<p>Practicing teachers need to constantly reflect on the range of teaching and learning strategies they employ in their classrooms. To support teachers’ ability to reflect upon the implementation of such strategies, research suggests that the use of a mentor to guide reflections can be beneficial (Dewey, 1933). However the mentoring approach adopted needs to reflect the needs of the individual to avoid it becoming a “tips” approach (Hargreaves and Fullan, 2000).</p> <p>Making thinking visible is becoming an area for development within teaching. It aims to develop thinking and learning abilities leading to a deeper understanding of content (Ritchhart, Church and Morrison, 2011). Using a lesson study approach, but with the focus on the teacher rather than pupils, this study looked at how teachers’ ability to embed visible thinking within their teaching could be enhanced using a structured and intensive lesson observation program. It aimed to identify how teachers’ thinking evolved as a result of questioning to facilitate teachers’ ability to clarify their own thinking and ideas in such a way that new understanding is developed and owned by the teacher (Ritchhart, Church and Morrison, 2011).</p> <p>Three teachers were involved in an intensive 4-week observation program. Each teacher engaged in focused planning, teaching and evaluation of lessons for one lesson per week. Focused questioning supported planning and evaluation phases. When teaching was</p>

	<p>undertaken, staff not teaching the lesson engaged in observation activities that helped support post lesson discussions. Recording of teaching was undertaken which allowed the teacher to review his/her own teaching. At the end of the research period, participants were asked to complete a short questionnaire to identify any changes they felt had taken place during the study period.</p> <p>Analysis of results indicated that a structured sequence of questioning improved teachers' quality of reflection over time. Making their reflection visible to another, as opposed to thinking in isolation (Dewey, 1933), allowed them to profit from the collaboration. Central to this was the establishment of positive mentor-mentee relationships that allowed teachers to have the attributes of open-mindedness and wholeheartedness in the collaboration (Rodgers, 2002). Participants reported improved capacity to reflect on their own teaching and used these reflections to support subsequent lesson planning.</p>
--	---

<b>Presentation Code</b>	7La
<b>Title</b>	Sustaining the Culture of Collaboration in Lesson Study through Fostering a Collegial Atmosphere: A Practice-Based Case Study
<b>Presenter/s</b>	Jacqueline Rose Gutierrez
<b>Affiliations</b>	University of the Philippines (Philippines)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Developing Professional Learning Communities: models and practices
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Queen's Lecture Theatre 1)
<b>Abstract</b>	Collaboration has been a longstanding research interest and found to be an integral part of professional development programs such as Lesson Study (LS). It is even considered as inherent in LS given that such practice operates within the context of mutual learning. Being so, it has been an emphasized feature in its practice (Cerbin and Kopp, 2006; Chokshi and Fernandez, 2003; Watanabe, 2003; Lewis, 2002; Yoshida, n.d.). Consequently, this has been adapted by our science educational research institute in its pursuit of integrating LS in a school-based professional development program in the Philippines; then aptly dubbed as Collaborative Lesson Research and Development (CLRD) Project. However, during the initial year of CLRD with a group of secondary school science chemistry teachers, it has been noted that there is a difficulty in fostering collaboration among members. This, among others, is greatly attributed to the top-down management style that invokes

hierarchy, instead of collegiality. Nevertheless, at the turn of the second cycle, a collegial environment was more pronounced. Notably, there was a marked increase in the degree of collaboration among members. The group then asserted that collegiality plays a crucial role in the degree at which teachers would collaborate that would even go beyond the formal meetings of the LS group (Austria, Danipog, Guitang, Gutierrez, Lolong, Nazareth, Placido and Ramos, 2013). This natural turnout of events resonates the assertion made by Lewis, Perry and Hurd (2004), i.e., the interpersonal relationships established during LS could make collaboration better, that is beyond the research lesson which could increase the coherence and consistency of the learning environment. In addition, this has become a contributing factor for this group of secondary school chemistry teachers to continue the practice of LS on their own. They have even extended it to other subject areas like Earth Science and Biology. This apparent success as attributed to collegiality, if measured through the yardstick of sustainability, is highly recommended to be analyzed further. Moreover, while it has been argued that collaboration and collegiality constitute and reflect one another, these two are considered not identical; thus, it is recommended to disentangle these two to properly understand and evaluate their educational merits (Kelchtermans, 2006). This study then describes the dynamics of this LS group on the aspect of collegiality. Further, it discusses conditions that naturally motivated the group to sustain the practice with such confidence and autonomy. The accounts for this case are seen beneficial ultimately in the development of process models in integrating LS as a sustainable school-based professional development program, as drawn from the Philippine school context.

<b>Presentation Code</b>	7L2
<b>Title</b>	Enhancing Pedagogical Skill of Prospective Physic Teachers through Teaching Practice Learning (PPL) Based on Lesson Study
<b>Presenter/s</b>	Rayendra Bachtiar
<b>Affiliations</b>	Jember University (Indonesia)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Developing professional learning communities: models and practices
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Queen's Lecture Theatre 1)
<b>Abstract</b>	Prospective physics teachers must have pedagogical skill to carry out learning. Authentic microteaching can improve their pedagogy abilities; and in my study is called Teaching Practice Learning (PPL)

	<p>in real situations (i.e. Teaching in school for 3 months). However, few studies state how prospective teachers are able to solve real problems (i.e Teacher cannot make their pupils do active learning in their lesson). Lesson Study activities solve learning problem collaboratively and thus, PPL based on Lesson Study is expected able to improve pedagogical skills. This research aimed to assess the effectiveness of PPL based on Lesson Study to pedagogical skills.</p> <p>Synthesizing learning design instruments were used to identify lesson plans which were made by trainee teachers. Analysing every activity in the lesson study phase carried out by trainees was used to measure the teaching skills of trainees which implemented their lesson plans. The final exam results of trainees who used the PPL course were used to measure mastery of pedagogical skills.</p> <p>Finding from the data analysis showed that PPL activities could improve pedagogical skill. Moreover, PPL based on Lesson Study could develop trainees' ability in teaching and learning, such as design of lesson plan, learning process, and assessment of learning outcome.</p>
--	--

<b>Presentation Code</b>	7Lc
<b>Title</b>	Sustaining the Quality Improvement of Basic Education Quality and Lecturers' Competence of Institutes for Teachers Training and Education Personnel through Short Term Training on Lesson Study (Stols)
<b>Presenter/s</b>	ibrohim ibrohim, Amri Zul, Iwa Kuntadi, Supriatna Asep and Mulyono Mulyono
<b>Affiliations</b>	Universitas Negeri Malang (Indonesia)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Developing professional learning communities: models and practices
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Queen's Lecture Theatre 1)
<b>Abstract</b>	Institutes for teachers training and education personnel (called LPTK in Indonesia) plays an important role in developing and improving the quality of education in Indonesia, especially on the basic and high school education level. In relation to that, Lesson Study (LS) has been developed in Indonesia from 2001 to 2005 through the program called IMSTEP, SISTTEMS (2006/2008), and PELITA (2009-2013) for the level of junior high school at piloting areas. The development of LS for lecturers at institutes producing teachers had been conducted through the program called LEDIPSTI (Lesson Study Dissemination Program for Strengthening Teacher

	<p>Education in Indonesia) from 2009-2015. For the sustainability of the LS as the media for improving the quality of education and competence of lecturers of LPTK, Directorate General of Higher Education in collaboration with Japan International corporation Agency have been conducting a program called Short-term Training on Lesson Study for Institute of Teacher Training and Education Personnel (STOLS for ITTEP, 2013-2017). This program is intended to extend and strengthen the understanding of lecturers of LPTK on the philosophy, concept, principles, and practice of LS through the training activities and direct observation at various higher learning institutions and schools in Japan. From October 2013 to 2015, Indonesia has sent 100 participants for 5 batches (20 perciptents for one batch and two batches a year) with 4 weeks stay in Tokyo Japan. When they come back to Indonesia, they are assigned to disseminate the LS in their own institutions, and then implement it in their classes and assist some partner schools. National seminar has been conducted twice, namely in at the end of 2014 and 2015 to monitor the implementation of the lesson study program. From the presentation and the result of questionnaire given to them, it is found that 1) in general, the participants have disseminated the results of STOLS in their study program/department/faculties and at partners school; 2) most of the participants have implemented the LS in their classes using 1 to 4 cycles and assisting the implementation of LS at schools; 3) there are about 85% of the participants (batches 1 to five) have written papers to be presented in national seminar. It is true that serious supports are expected from various parties, namely, district office of Ministry of Education and Culture, school partners, and universities to keep the quality and sustainability of the LS.</p>
--	---

<b>Presentation Code</b>	7Ma
<b>Title</b>	Using Learning Study as a Platform for University Teacher Professional Development – A Case Study in China
<b>Presenter/s</b>	Shuying Li
<b>Affiliations</b>	City University of Macau (China)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Lesson study in different cultural, subject and learning contexts
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Peter Chalk 4: 2.4-2.6)
<b>Abstract</b>	<p>Teacher Professional Development in tertiary institutions has been a major topic in the past decade, due to the louder student voice on their serious concerns on university teaching quality and learning experience. This paper describes the presenter's experience in leading a one-year pilot project of Learning Study for Teacher Professional Development (TPD) in a private university in China. From 2011 – 2014, the presenter was hired as Chief Academic Officer of a large private university in China, which is an integral part of a global universities network. Applying his extensive experience in Lesson Study in Japan, Teaching Study in Mainland China and Learning Study in Hong Kong, the presenter secured a funding for a one-year Learning Study project for TPD in a few selected subject courses in the Business School of the university. An action research team was formed, consisting of instructors in the same or similar subject, with a Learning Study (LS) consultant. The LS consultant's major responsibility was to make sure that the action research project was done in the proper manner and the requested data for further analysis was collected and coded properly. The project was completed at the end of 2014. Through the case analysis, this paper examines the various issues around implementing and promoting Learning Study in a higher educational setting, which, to large extent, is different from that in secondary and primary schools. The paper uses the case as a source for reflection upon the challenges and the impact of the LS on TPD in tertiary institutions. Suggestions and recommendations were made for those tertiary institutes who want to implement LS as a form of teacher professional development/teacher training to enhance the quality of teaching and learning experience.</p>

<b>Presentation Code</b>	7Mb
<b>Title</b>	Lesson Study Research in a University English Language Teaching Department: Impact and Limitations
<b>Presenter/s</b>	Dr. Julie Norton, Seyit Ömer Gök, Fay Baldry and Wasyl Cajkler
<b>Affiliations</b>	University of Leicester (United Kingdom) and Gediz University (Turkey)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Lesson study in different cultural, subject and learning contexts
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Peter Chalk 4: 2.4-2.6)
<b>Abstract</b>	<p>In contrast to schools, the use of lesson study (LS) in Higher Education has been slow to take off in many parts of the world. Adapted versions of LS have been used in initial teacher education (e.g. Fernandez, 2010; Sims and Walsh, 2009; Cajkler, Wood, Norton and Pedder, 2013) but its use in the teaching of other disciplines, such as English Language Teaching in Higher Education, has not been reported extensively in the literature.</p> <p>In two recent projects (2015, 2016), the Leicester Lesson Study Research Group (LLSRG) in collaboration with colleagues from the English language teaching department of a Turkish University have experimented with the use of LS to improve the quality of teaching and learning in a foundation degree course for university students. A Q-sort method (Watts and Stenner, 2012), which drew upon factor analysis of 36 teacher participants' responses, combined with focus group interviews and individual questionnaires, were used to explore the initial impact of LS in this cultural context. In the first year of the project, 14 teachers ranked 47 statements, based upon the LS literature, into a quasi-normal distribution (Q-sort). This systematic study of participants' subjective viewpoints provided a frame of reference for the analysis of the interviews and questionnaires. The Q-sort was repeated six-months later to allow in-depth scrutiny of teacher perspectives on the longer-term impact of LS on teacher identity and professional development. In the second year, 22 teachers have participated in the same way. Initial findings suggest that participation in LS has had a positive impact, as teachers adopted a more learning-focused orientation to their planning as a result. However, a number of challenges and constraints regarding the more widespread use of LS in Higher Education were also identified.</p> <p>This presentation builds upon our WALS 2015 presentation and discusses the challenges and opportunities that LS as a mode of teacher professional development offers to Higher Education. It also explores the constraints of implementing LS in an academic setting.</p>

<b>Presentation Code</b>	7Mc
<b>Title</b>	Using Guidance-Based Lesson Study to Accelerate Students' Completion of the Study
<b>Presenter/s</b>	Suciati Suciati
<b>Affiliations</b>	Sebelas Maret University (Indonesia)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Lesson study in different cultural, subject and learning contexts
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Peter Chalk 4: 2.4-2.6)
<b>Abstract</b>	<p>The main background of this research are the limitation of the current study guide and its impact towards the length of students' degrees' completion. This study aims to determine the effectiveness of lesson-study-based guidance on accelerating degrees' completion, especially in the implementation of the subject of Biology with the principle of teaching environment's literacy empowerment. This is a descriptive research that examined four students who were completing the thesis at the Postgraduate Program at Sebelas Maret University in the third semester of the academic year of 2014/2015. The data were collected using several methods, such as observation, interview, questionnaire and documentation. These collected data were then analyzed using a descriptive-qualitative method. There are four phases that are involved in the lesson-study-based guidance, which are planning, acting, observing and reflecting. During the planning phase, the lecturer provides consultation regarding the identification of the issues, the definition of the action, and the definition of the title, the development of the tools and the validation of the instruments. Then, during the acting and observing phases, the lecturer monitors the preparation and the performance of the students on the teaching implementation. Finally, in the reflecting phase, the lecturer provides the students with feedback in regards to the further planning. The results show that by implementing the lesson-study-based guidance, not only a better relationship was formed between the lecturer and the students, but the obstacles that the students usually face when conducting a research were also minimized. Therefore, it can be concluded that this guidance has positive impacts on the speed of students' degrees' completion.</p>

<b>Presentation Code</b>	7Na
<b>Title</b>	A Consideration of how Lesson Study at Schools and Case Conference in Hospitals Influence Each Other
<b>Presenter/s</b>	Masataka Kizuka
<b>Affiliations</b>	Kyoto Prefectural University of Medicine (Japan)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Lesson study in different cultural, subject and learning contexts
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Newman Collaborative)
<b>Abstract</b>	<p>The purpose of this paper is to consider the relationship between Lesson Study (LS) at schools and Case Conferences (CC) in hospitals as a means of professional education. Specifically, this paper will discuss how professional expertise is created and enhanced in LS and CC.</p> <p>Teacher Education (TE) has a long history of using the Education of Medical Doctors (EMD) as a model. For example, university affiliated schools in TE model teaching hospitals in EMD. Therefore, LS also has a history of borrowing methodology from CC.</p> <p>LS was focused on determining and codifying the “best practices” of teaching in the 1960s and early 1970s, but this aim was eventually abandoned in favor of a focus employed by CC. This change of focus was in part owing to the works of the late emeritus professor of the University of Tokyo, Tadahiko Inagaki. He was influenced by the ideas of CC and advocated an evolution of LS away from the seeking of generalized principles to its current form of optimizing both the individual learner’s experience and the teacher’s competency to learn from experience, specifically by watching a filmed lesson and exchanging varieties of views of the participants in LS.</p> <p>In a similar manner in Japan, the methodology of CC has been influenced by that of LS. In the late 1980s, LS practitioner/researcher, Manabu Sato, began advocating for TE to focus on “reflection” or “reflective practice”, and this movement spread to EMD in the early 2000s in Japan.</p> <p>In the sense that both doctors and teachers directly deal with humans, they face some common issues: 1. School teachers and medical doctors constantly confront complexity and uncertainty in terms of their work. 2. Their knowledge base is acquired and formed through the process of problem-solving and experiencing various cases; hence, case analysis and reflection are pivotal for them to enhance their professional expertise. 3. Their expertise is situated, context-dependent and derived from tacit knowledge. Since they address similar issues, it can be stated that the interconnection of TE with EMD is well established and that the adoption of a practice in each field is not limited to a one-way</p>

	movement. In this paper, specifically by focusing on the relationship between LS and CC, the following aspects will be explored: 1.Similarities between LS and CC. 2.Significance/meanings of LS and CC for professionals. 3. Enhancement of professional expertise through LS and CC.
--	--

<b>Presentation Code</b>	7Nb
<b>Title</b>	The Issue of a Research Question within Lesson Study
<b>Presenter/s</b>	Yuliya Melnikova
<b>Affiliations</b>	Centre of Excellence (Kazakhstan)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Lesson study in different cultural, subject and learning contexts
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Newman Collaborative)
<b>Abstract</b>	<p>Recent implementation of Lesson study in Kazakhstani classrooms derives many issues faced by the teachers. As the result of the analysis of some typical case studies the presentation will reveal one of the difficulties the teachers struggle, such as developing too broad research questions which are «all about» and do not define clearly the problem teachers are interested in nor put boundaries on the research.</p> <p>In this regard through active engagement in searching for methods to use in order to help teachers to narrow their research questions Center of Excellence trainer came up to the adaptation of some well-known approaches such as SMART format which stands for building a specific, measurable, achievable, real and time framed formulation of a research question; PICOT format standing for population, intervention, comparison, outcome and timeframe; what, why and how approach; FINER acronym (feasible, interesting, novel, ethical, relevant research question). Moreover, the idea of the transformation a coaching instrument such as questions based on “Robert Dilts Logical Levels of Change” was also introduced as an approach facilitating teachers in setting up precise research questions for conducting Lesson study.</p> <p>Therefore, the paper aims to present methods and approaches used by Center of Excellence trainer to support teachers in developing their research question along with the evidence collected as the result of the implementation of above mentioned approaches.</p>

<b>Presentation Code</b>	7Nc
<b>Title</b>	Teachers' Collaborative Reflection Process through Lesson Analysis Meeting of Lesson study in Japan.
<b>Presenter/s</b>	Atsushi Sakamoto
<b>Affiliations</b>	Fukushima University (Japan)
<b>Type of presentation</b>	Paper presentation
<b>Strand</b>	Lesson study in different cultural, subject and learning contexts
<b>Time/Location</b>	Monday 5 <sup>th</sup> September 14:00-15:30pm (Newman Collaborative)
<b>Abstract</b>	<p>Recently, the reflection of teachers in a post-lesson conference of lesson study has been pursued as a teachers' collaborative learning process (Akita, 2009). During teachers each other discuss based on facts of a lesson, they deepen the reflection on the problems and possibilities of the lesson along with the representation of teaching practice (Sakamoto, 2012). On the other hand, "lesson analysis" based on records on lessons (Matoba &amp; Shibata, 2012) has begun to be used internationally as a method of improvement of teaching (Sarkar-Arani &amp; Shibata, 2015). However, in the lesson analysis meeting based on the record of the lesson, the process of teachers' collaborative reflection and learning is not clear.</p> <p>Thus, the research question of this study is how teachers deepen their reflection to a lesson through lesson analysis process in which teachers collaboratively interpret the facts of a lesson represented by a transcript record of the lesson practice.</p> <p>In the lesson analysis meetings, the transcript of social studies lesson (theme: "metropolitan area to expand") of first year junior high school was examined. Participants of the meeting was 9 members, including teachers, researchers, and graduate students. In the lesson record, students discussed on "Tokyo is either 'head' or 'heart' of Japan?", and the main topic of the discussion became "What is the meaning of 'center' of Japan?"</p> <p>The lesson record is segmented by change speakers and numbers it. (a total of 58 utterances).</p> <p>The analytical framework is applied from lesson analysis method (Matoba &amp; Shibata, 2012). The lesson analysis meeting was recorded by the IC recorder and transcribed. The record of the lesson analysis meeting is segmented by change speakers and numbers it. (a total of 129 utterances). The analysis meetings verbatim record that was created as basic materials, was exploratory consider the process of deepened reflection through the lesson analysis meeting.</p> <p>The results of this research have 2 points. First, for the reflection</p>

process in the lesson analysis meeting, the interpretation of the intent of the teacher based on the teacher's utterance is carried out before the reflect students' thinking. Second, by teaching intent of the teacher become clear in the analysis meeting, the deviation between the student's learning and teacher's intent will become apparent in the analysis meeting. The lesson analysis process deepens the teachers' reflection to the students' learning.