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Exploring the concept of exploration

Professor Elin Eriksen Ødegaard and Dr Liv Torunn Grindheim

KINDknow

Western Norway University of Applied Sciences

First keynote

The notions and ideas of the United Nations (UN) and the United Nations Educational, Scientific and Cultural Organization (UNESCO), which are outlined in Transforming our World: The 2030 Agenda for Sustainable Development (UN, 2015), can be seen as an introduction to how exploration can be brought more directly into early childhood education (ECE). In this document, the UN and UNESCO ask for a loci-based, ecological, integral education. We claim that children’s exploration connects to integral education.

In this speech, the authors will start out with a dialogue on the background for current work on theorizing and operationalising exploration in research stated out in the research group Kindergarten as an arena for cultural formation, and the work task taken on a topic that has guided us to study children’s cultural formation both locally and globally. Conditions for children’s exploration is a crucial theme and a work package in KINDknow. We have started to explore the concept of exploration taking departure from Hedegaards (2009) cultural-historical outlines of children's development and Ødegaard and Krüger’s (2012) socio-epistemological framework for studies of cultural formation [‘danning’/’becoming’]. The combination of these theoretical approaches serve as a tool to examine children’s exploration as a radical local activity that supports their cultural formation. Exploration can depict how children influence the activities they participate in. The concept exploring also opens up for convictions that intellectual understanding of knowledge is not enough to support changing practices to foster sustainable living. Emotions, values, imagination, embodiment, artefacts and sensitivity to local and global place and nature are also crucial to foster sustainable living. The conditions and characteristics of explorative practices, found in earlier literature and experiences, interact in dynamic ways and are difficult to grasp.

We will present two examples of our current work in more details; Elin Eriksen Ødegaard proposes a pedagogical model of exploration as dialogical engagement and how the concept of exploration can contribute to an understanding of children’s cultural formation in the complex context of early childhood education. Liv Torunn Grindheim presents a way of operationalizing exploration as conflicts between involved children’s values and motives, versus conditions and demands at four levels of their context. The aims are to argue for, outline and discuss conditions for analysis and a pedagogy that promote exploration. Central
to the speech is the attempt to visualise how characteristics of explorative practices interact with some central conditions in local settings in practice and analysis.

These contributions open the concept of exploration that help overcoming the dichotomy of play and learning and the dichotomy of child-centred versus teacher-centred practices. Multidimensionality and the awareness of conflicts as a resource, open for possibilities to face contradictions and complexity. How to do research into the complexity of a wholeness approach to education will be crucial in moving EEC research forward within sustainability frameworks.

**Exploring Compassion Organizing in Early Childhood Education**

Lasse Lipponen, Professor of Education,
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**Second keynote**

In this paper, relying on the cultural historical approach to learning we report on the results of an ethnographically-grounded investigation of compassion organizing in culturally diverse early childhood settings. Based on observations and interviews, we examine the responses of a kindergarten community to situations when a child is suffering or undergoes difficulties. It appears that these cases form an object of activity, and create a pattern of collective activities that forms of organizational capability that alleviates suffering by generating, and coordinating resources to direct toward children who are suffering. The methods and conditions for supporting compassion organizing are discussed.
Transforming traditional pedagogical practices: A case study of children’s explorations and adults active play in a Chinese kindergarten

Professor Marilyn Fleer and Dr Liang Li, Faculty of Education, Child and Community Development, Monash University

Third keynote

International interest in researching children’s playworlds in Western countries has emerged (Lindqvist, 1995; Hakkarinen, et al., 2013; Fleer, 2017) as preschool teachers fight to retain play-based programs in politically challenging times. But in the Asia-Pacific region, many Governments have legislated through the release of new curricula a more playful approach (Rao N, Li, 2009). But how teachers transform their practices has not only been challenging (Pan, Wang, Li 2018), but difficult because the Western models of play available to them are not culturally contextualised or relevant. Consequently, we undertook an educational experiment (Hedegaard, 2008) in which we introduced the idea of a playworld model of pedagogy to teachers in China as a catalyst for change. In following a cultural-historical view of play and learning, researchers and teachers worked together to develop a new model of playworlds to support the new curriculum need by Government for Chinese teachers to implement play-based programs contextually.

We followed one teacher over three periods in one year. The play practices were digitally documented and analysed to understand the transformation of traditional pedagogical practices. We were interested to know how a Chinese kindergarten teacher planned and actively developed their play practices in ways that were culturally relevant for the teacher and the children. The concept of a double subjectivity (Kravtsova, 2010) was used to capture the interactions between teachers and children in the playworld. The study found a series of ways that adults and children entered into the play practices, where contradictions in the roles of adults and children in the playworld created new developmental possibilities. It is argued that the dynamic contradictions between existing traditional classroom pedagogy and playworld pedagogy enabled new practices to emerge. Children’s exploration and learning appeared to serve the function of maturing the play practices in the centre. The findings contribute to better understanding the dialectical relations between kindergarten practices and children’s explorative activities in a playworld within a Chinese context.
Dialectical connections between make-believe play and maths in kindergarten

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Since 2009 in Switzerland, school is mandatory as of 4 years. The first two grades, including children aged from 4 to 6 years old, is integrated in the primary school including children from 6 to 12 years old. Veuthey and Capitanescu Benetti (2014) showed that this change had an impact on teacher practices: teachers in kindergarten have similar practices as teachers in primary grades. Conversely, Van Oers and Duijkers (2013) showed that a play-based teaching is beneficial for student’s learning between 4 and 8 years old. This kind of program is specially used in mathematics teaching and some authors (Fleer, 2017; Magnusson & Pramling, 2017) showed that a play-based program is useful for mathematics learning and is powerful because of its predictive effect on mathematics performance in primary grades (Hanline, Milton, & Phelps, 2008). Fundamentals learning include self-regulation and the construction of a mature make-believe play (Clerc-Georgy & Kappeler, 2017). The make-believe play introduced by Vygotski is involved in the development of high mental functions in the child (Vygotski, 1966/2016). In line with previous research, the goal of my research is twofold: first it’s to understand the specific teacher practices involved in a play-based program in mathematics using the make-believe play, and secondly, it’s to highlight learning at stake during this kind of teaching. We make the hypothesis that there is a strong link between the development of a mature make-believe play and the development of mathematical understanding which can be both reinforced by a play-based program in mathematics and their associated specific teacher practices.
Inclusion and participation barriers explored from the perspectives of young children with disabilities: How do Danish professionals condition the transitional processes of young children with disabilities?

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The paper sets out to explore how professionals in Danish preschools approach children with disabilities and cooperate inter-professionally when the pedagogical aim is the continued inclusion and full participation of children with disabilities. Inclusion of children with disabilities in Danish general day care is a relatively new responsibility for ECE professionals.

The study’s research question is: How do participation barriers present themselves to children with disabilities when they transition from one age group to the next around the age of three? How can social sustainability be enhanced for all children?

The empirical material behind the study is mainly produced in relation to the ph.d.-thesis: Young Children’s Perspectives on Inclusive Practice (Bendix-Olsen, 2018). In this research project four children with different types of impairments were followed over a two year period in two day care centres. The research methodology was explorative drawing on practice theory (Lave, 2011; Lave & Wenger 1991; Wenger, 1998), critical psychology (Holzkamp, 2005; Dreier, 2008; Højholt, 2016) and material feminism (Garland-Thomson, 2007, 2011, 2012, 2015). New empirical material will be produced by following up on one of the children’s day care trajectories as she faces her transition to the general school system.
Children’s outdoor play activities in kindergartens in China and in Norway

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This paper is based on the understanding that children’s outdoor play takes form in a dialectic relation between children’s interests and motives and societal, institutional and climate conditions. The aim of the paper is to illuminate how conditions for children’s outdoor playtime in different cultural contexts give affordances for children’s play. Conditions such as time and space are highlighted. The main focus in the article is how institutional conditions such as time regulation, space and material equipment interplay with children’s motivation and intentions in outdoor play activities. The traditions for emphasising play in curriculum and practices in early childhood education in Norway and China have differed culturally and historically. Investigating a case from China and a case from Norway will contribute to knowledge about varieties in the interplay between conditions and children activities in outdoor play. The authors use participant observation by obtaining video and photographs from the playground at each kindergarten and by doing interviews with the manager and staff. The photos and video material from a Chinese kindergarten consists of three hours of video and more than 100 photos taken during seven days of observation and the same amount of material from five days of observation in a Norwegian kindergarten in March 2017.

Preliminary findings indicate that more space, more time outdoors in self-initiated activities and a longer time for transition between indoor and outdoor activities are provided in the Norwegian kindergarten, whereas more time for collective teacher-initiated activities and more artefacts for outdoor play are provided in the Chinese setting.
Social sustainability in children’s communities. Inclusion, exclusion and togetherness in small children’s everyday life in kindergarten

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The social sustainability within a society or community can be characterized by components such as well-being or quality of life, equity and inclusion. In kindergarten, migrant children may risk perceiving themselves as excluded or on the outside of the kindergarten community due to issues of language, lack of shared common knowledge, or social or cultural differences. Small children; two and three-year-olds, may, or may not, share a common verbal language, however they can share universal non-verbal signals such as facial expression, gesture and physical actions, as well as material artefacts in order to initiate, invite, include, exclude, reject or sustain episodes of togetherness and playfulness. As a feature of ‘belonging’ can be associated with a long-term commitment, ‘togetherness’ in the kindergarten can be linked to short and fluent experiences of emotional closeness. Fieldnotes, observations, photos and small-stories from fieldwork in two multicultural kindergartens form basis for an exploration of the role of materiality in the fleeting moments of inclusion, exclusion and togetherness that constitute social sustainability in small children’s communities. The data analysis is conducted within a cultural-historical framework.
Children with disabilities growing up and exploring life as an adult – socio-cultural challenges around the transition to adulthood

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The transition from child to adult is an important developmental period filled with exploration of what it means to be an adult and what kind of adult one can be and wants to be. While this is true for all children, the incongruence between the young person with disability and societal demands suddenly increases as the child turns eighteen and are met with adult demands and obligations based in what typically developing children on the verge to adulthood can do. The aim of this presentation will be to untangle individual and social challenges during this transition for young people with disabilities living in a 21st century Nordic welfare society. Drawing on a set of cultural-historical concepts such as developmental crises, motives (Hedegaard, 2008), disability as dialectically developed (Bøttcher & Dammeyer, 2016) and the model of institutional transition from Winther-Lindqvist (2019), the transition to adulthood is investigated through interviews with eight young people with severe disabilities and their parents. Results show that children with severe disability can be delayed in their development due to neurobiological and socio-cultural reasons and thus not ready for adult life the same way as children with typical development. The societal demand to be an adult at a specific chronological time can create developmental crises, but through specialized and sensitive support, the children might begin to explore their possibilities for an adult life and develop a motive for becoming an adult. Continued positive motive development calls for institutional practices that support the transition from child to adult for children with severe disabilities and, for some, a prolonged period of adjusting to adulthood compared to typically developing children/young adults.
Analyzing the acquisition of Mathematical concept from a cultural-historical wholeness

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The personal aspect of knowledge – the everyday concepts – is located in the life setting of a person. These personal concepts are the foundation for the child’s appropriation of subject matter which in turn qualify the individual concept, so the daily life concepts are also the basis of larger theoretical concepts. However, the mastery of the subject concepts is not easy and universal. It is closely related to the curriculum provided by the state, the level of children's development and teachers' teaching. In this paper, I take the concept of “measurement” in mathematics as an example, using the analytical framework from the cultural-historical perspective proposed by Hedegaard, to examine how does the daily life concepts transition to the subject concept of “measurement” from the national, organizations, and individuals level respectively. The process of research reveals the importance of activity exploration and daily life experience to children's concept acquisition from a micro perspective. What’s more, the National curriculum organization, the teaching level and exploratory materials (historical and cultural tools) also play an important role in the acquisition of children's disciplinary concepts. Finally, it discusses the relevant factors and educational strategies, and puts forward practical educational suggestions: (1) attaching importance to the material support for the transition from daily concept to subject concept; (2) Pay attention to the summary and promotion of specific concepts by teachers;(3) Enriching children's life experience; providing more opportunities for exploration;(4) Critical transitional events provide conflict and situation for the transformation of children's discipline concepts; (5) Teacher should pay more attention and support to children's motivation and needs in activities.
Correlation evidence in England highlights the relationship between fathering and child outcomes (Flouri and Buchanan 2004) but remains limited in illuminating any processes, particularly from the young child’s perspective. Accordingly, we present two papers addressing the problem:

How does an examination of micro-moments help us recognise opportunities for learning between young children and their fathers, from the child’s perspective, across national contexts?

We see ‘micro-moments’ as potential opportunities for learning, arising through the child’s social situation (Vygotsky 1998).

Our pilot study draws on Hedegaard and Fleer’s (2008) model of learning and development; using a cultural-historical perspective to explicate the child’s object related motive, and opportunities for development through an analysis of the child’s social situation in activity settings with families. The model allows us explore those moments of rupture between a dominant motive and the other motive; and subsequent opportunities for learning in ‘instructional relationships between father and child’.

Data collection methods included between 5-10 hours of film footage of children and fathers in twelve families within England, Hong Kong, Norway and India; film elicitation interviews with children, and semi-structured interviews with fathers.

The first paper analyses three families in England focussing on similarities and differences in ‘micro moments’ and instructional strategies (Bugrimenko and El’konin 2001) in father – child relationships. Taking the position that the structure of pedagogic relations occur within a regulative context; the paper also identifies how the different instructional relationships are ‘framed’ (Bernstein 1971) in the families, raising questions about connections between institutional regulation and individual consciousness.
Ethical-symmetrical research with children as transgenerational mutually emancipating co-exploration of the more than human world

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In the early 2000s, Christensen & Prout (2002) suggested the notion of ‘ethical symmetry’ for research with children in order to not preclude ontological differences between adults and children, but let differences in experiencing world exploratively emerge throughout the research process. This proposition has been inspirational for much participatory research with children (cf. Salamon, 2015). Critical voices, meanwhile, emphasize that despite its good intentions, much ‘participatory research’ reproduces a tokenistic knowledge from above that speaks and acts on behalf of rather than together with children as future global citizens.

The paper argues that ethical-symmetrical research with children cannot merely focus on equalizing ontology at the beginning of a research project. The researcher needs to explicate, situate and renegotiate ethical relations among all participants anew all the time. This would revise what ‘ethics’ means in a qualitative-participatory research project with children (or any other participant), and implies three conceptual moves that the paper will shortly present:

1. An ontological, epistemological and methodological shift in the researcher’s self-understanding and of the knowledge produced: the researcher as co-explorer and transformative activist communicator (with inspiration from Stetsenko, 2008, 2009).

2. A more process-oriented, analytical-pedagogical notion of generalization: everyday concepts and scientific concepts as dialectically entangled artifacts, which are multimodal and relate to Wartofsky’s (1979) three forms of perceptual activity (genetic, reflexive, imaginary).

3. A notion of ethics as transgenerational ecocentric (Payne, 2017), thus grounded in global, more than human everyday life as ongoing and caring co-exploration of mutual responsibility (Puig de la Bellacasa, 2017).
In our context, we observe the gradual disappearance of free play at preschool and the implementation of teachers’ practices that imitate more and more the ones of primary school. These changes shed light on the traditional tensions between the social-pedagogical and the preparation-for-school traditions, between play and learning, and between spontaneous and reactive learning (Vygotski, 1935/1995). To overcome these tensions, we defend the need to develop a third way (Clerc-Georgy, 2016).

At preschool age, the child experiments cultural tools according to his own interests. To do it, free play seems the most conducive activity (Bodrova, 2008). However, development cannot be considered as the only result of a maturation’s process nor learning as only experiences where children are expected to discover established knowledge on their own (Pramling, Doverborg & Pramling Samuelsson, 2017). Thus, the third way proposed here should make it possible to articulate play and learning dialectically (Clerc-Georgy, 2018; Fleer, 2009) and taking into account child’s perezhivanie (Vygotski, 1934/2018; Veresov & Fleer, 2016).

Our analyses of play moments as well as learning situations managed by the teacher led us to identify three types of articulation between play and curriculum: 1) absence of link between play and curriculum; 2) links between moments of play and moments of teacher-directed learning; 3) integration of play and learning.

In this communication, we will present some results from two points of view: the implemented teaching practices on one hand, the changes in children’s play on the other.
Exploration as achieving mobility around space (locomotor exploration) is a complex embodied learning instrument and important indicator of interest, emotion, and social engagement in infants (Wallon, 1979; Hoch, Grady & Adolph, 2018). The topic has been highly studied either by biological or cognitivist laboratorial tradition, centered on adult-child dyadic interaction. However, as attendance at ECE (daycares) by infants from 4-6 months has increased - as it occurs in Brazil – we aimed to investigate locomotor exploration as a complex embodied social-cultural appropriation process in naturalistic surroundings, particularly focusing on interactive dynamics among infant-peers (Rossetti-Ferreira, Oliveira, Carvalho & Amorim, 2010). Approved by Ethics Committee, there is consent for child participation and image use (Rutanen, Amorim, Marckwick & White, 2018). A qualitative (González-Rey, 2002) longitudinal case study (Yin, 2009) was conducted, underpinned by cultural-historical approach (Rossetti-Ferreira, Amorim & Silva, 2007) and ecological perspectives (Gibson, 1966; Gibson, 1988). A focal infant (Isabela, 6 mo.) was followed for two months - observations and video recordings - during her transition to philanthropic Brazilian daycare. Selected microgenetic exploratory locomotor episodes (Adolph et al, 2012; Kretch & Adolph, 2017) were analyzed based on postural progression, self-locomotion and/or falls, following baby’s actions towards differentiated interests, while considering routines and spatial/temporal affordances (Liempd, Oudgenoeg-Paz, Fukkink & Leseman, 2018) besides interaction with different peer partners. Exploration occurred frequently through object sharing / conflict situations, among either novice or experienced crawlers. Findings suggest that: younger babies seem to allow slower-paced exploration and older babies co-construct more far-reaching/challenging exploratory movement; triadic attention with objects "animated" by peers’ (Rossetti-Ferreira, Oliveira, Carvalho & Amorim, 2010) movement unfold greater engagement, challenging the child and requiring more complex movements means – precision, velocity, alternation – contributing to new/diverse achievements of self-mobility exploration (Kretch & Adolph, 2017) and appropriation (Vygotsky, 1984) of the environment/others/own body. Contributions involve theoretical and empirical enrichment and practical illustrations for parents and professionals.
Children with migration experience, as well as with migration background have been increasingly included in the education system in Norway. Their migration experience and/or migration background - is it advantage or disadvantage?

The main goal of presented research is:

to learn about forms of educational support for children of Polish immigrants in the Norwegian education system at the compulsory level

To achieve the intended goal I would like to find answers to the following questions:

1. How do children from Polish families deal with Norwegian schools on the social, academic and economic level?
2. How do Norwegian schools deal with needs of minorities’ children? What are the special needs of Polish children comparing to other immigrants?
3. What kind of educational choices are made by Polish parents concerning the future of their children in Norway?

The author presents a qualitative research project focusing on the analysis of forms of educational support for children of Polish immigrants at Norwegian schools. The planned qualitative research will be based on in-depth interviews with parents of children who attend compulsory education in Norway. Children of migrants are recognized as pupils with special educational needs and therefore need the support of a dedicated educational for them. The author outlines the research topic, the theoretical foundations of the research, time and place of the planned interviews, the subject of research, methodological basis of qualitative research using in-depth interviews. The presentation includes also the main and detailed research problems, as well as research goals.
Contradictions in children centre provision: the art of the possible in multi-professional work

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Since the inception of children’s centres in the UK in the late 1990s there have been many debates in the research literature as to the efficacy and effectiveness of their set up (Cottle 2011; Hall et al. 2015; Bagley 2011). Children’s centres in England are seen to be at the forefront of a new way of working; a ‘one-stop provision drawing together a range of health, education, welfare and care services’ (Ball and Vincent 2005, 559). Research into multi-professional working practices suggests that such work requires new and complex ways of professional working if it is to successfully support young children’s development and families (Edwards 2004).

The presentation focuses on multi-professional work in two children’s centres in London and identifies difficulties inherent in providing joint service provision for young children.

Exploring through interviews the working practices as perceived by a number of different professionals working in the children centres, the data identifies difficulties and contradictions in joint professional work (Anning 2010).

These contradictions are then discussed with the respondents together using an interventionist research methodology known as Developmental Work Research (Engeström 2007) in order to debate possible future work developments.

The work emphasises children’s needs rather than the availability and expertise of multi-professional teams. This requires a model for working that enables loose flexible arrangements of professional networks (Leadbetter et al. 2007) in order to collaborate on specific cases, thereby starting with the needs of the child.
Creativity has now come to be considered one of the most valuable attributes a person can have, at least in today's Western societies (Craft, 2003). Glaveany (2011) regards creativity not as an individual capacity but instead as a social phenomenon.

The study examines how place and materiality can be understood as an educational resource for developing and challenging children's ability to negotiations and creativity.

The theory of affordance (Gibson, 1979) is used. Baerentsen and Trettvik (2002) argue that it is necessary to supplement affordance theory with cultural-historical theory when affordance theory is used for analysis where contextual factors are included. In this study, the Vygotskian framework of fantasy and creativity is used (Vygotsky, 1978).

Analysis of video-observations (Lange & Mierendorff, 2009) from two different parts of exhibitions at a science center is conducted. These environments are explicitly intended to stimulate children's creativity and innovative discovery. The analysis also consists of interviews with two pedagogues.

When a child who is exploring for example sticks, wants to play “ice-cream stand”, he/she contacts a friend and says "Now, this is a pear ice-cream". Then the friend can join the play, and the play continues and evolves. The neutral material like sticks has a broad variety of affordances that encouraged the children to talk and negotiate with each other. The play then became more collective. Is this then a place or condition for developing or supporting creative competence among children?
The cultural-historic theoretical construct of *perizhivanie* is often explored in relation to children’s perceptions of their own world. However, this concept is also related to the other members of the child’s social situation and in particular the adults within an institution that determine the nature and mores of local traditions and practices.

Following the results from the Australian Early Development Index, low levels of social and emotional development in young children and links with high levels of behavioural difficulties resulting in the exclusion of children from early education centres raised concerns for the education authority and a project to explore the underlying factors that led to these results commenced.

The paper draws foregrounds the role of cultural context of the institution and the interrelationship between children and adults through local custom and practice. This informs a better understanding of the links between the family, community and the early childhood centre through the lens of different *perezhivanie*.

The paper reports the results of a series of focus groups with parents, early childhood professionals and policy makers that sought to identify

- key areas of concern they identified in developing the necessary skills to ensure the traditions and conditions of learning are contextually relevant
- potential changes to pedagogy to more effectively juxtapose the institutional conditions with local conditions to support children's self-regulation and positive social interactions.

*Perezhivanie* remained the silent construct (Brennan, 2016), and warrants exploration to more clearly gain understanding of each person’s subjective experience to more fully understand the behaviours and this thinking is further unpacked.
One of the central premises of cultural-historical activity theory is that children’s agency plays a crucial role in their learning and development (Karpov, 2005; Rainio, 2010; Greeno & Engeström, 2013). While this is true within both theoretical discussions as well as analysis of specific cases, many of the recent studies on children’s learning have focused on children’s agency within well bounded and structured activities (e.g., Hedegaard & Fleer, 2013). While there are notable exceptions (e.g, Rainio & Marjanovic-Shane, 2013; Rajala & Sannino, 2015; De León, 2015), the way in which children’s initiatives and interests lead to the emergence and stabilization of new activities in their everyday life, is less studied and undertheorized in the current literature on cultural-historical activity theory.

In this presentation I will address this issue by building on my earlier work on children’s agency in a school based alternative learning infrastructure, the FUSE Studio (Hilppö & Stevens, in preparation; cf. Rajala & Sannino, 2015), and argue that the productive deviations we identified through our analysis developed into more stable activities, namely children’s projects, as part of the FUSE Studio. Furthermore, based on other examples from the public domain I will argue that such project are a common feature in children’s lives and conceptualize such projects as manifestations of leading activities (Elkonin, 1972; Veresov, 2006).
Exploration: Perceptions and practices of kindergarten teachers in China

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This study investigates how Chinese kindergarten teachers perceive exploration in early childhood education (ECE) and how the perceptions influence their daily practices. Data are collected in the form of documents, open-ended questionnaires as well as online interviews. Major documents are ECE related policies, curricula at different levels, and exploratory activity plans shared by the teachers. Kindergarten teachers from Huining (Gansu province), Kunming (Yunnan), and Shanghai have answered the online open-ended questionnaires. In addition, online interviews have been conducted with kindergarten teachers and principals for different purposes. This study finds that teachers across the regions share similar perceptions on exploration, which influence their daily teaching practices. However, the practices are at the same time various with each having their own distinctive features influenced by other factors for example available resources.
Exploration as part of the policy driven school setting? How do you dare…

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Drawing on two sets of interviews (2008, 2018) relating to moral considerations as part of a school setting, this presentation brings a critical perspective on the notion of exploration, development and knowledge production in schools. It draws on Vygotsky’s (1987) conception of the fundamental unit of analysis as the materially based word-meaning, as it has been developed by Vygotskian psychologists, as well as cultural and cognitive anthropologists, to examine how cultural practices evolve ontogenetically over a life-setting (Møller 2015). It argues that transgression of interactants’ self-directed initiatives is the basis for transformation, as supported by evidence in the late interviews collected after the recent school reforms.

It considers the concept of creativity in relation to the concept of change, specifically the transformation of activity and development of activity. It examines how to broaden the setting igniting transformations by supporting transgressions and consequent negotiations, providing insights into knowledge production, creative and transgressive acts and, in a broader perspective, the co-construction of institutional practices. It argues that the recent reforms build on a pedagogical approach where culture is understood as transmitted rather than transgressed and transformed, hence altering the cognitive requirements for this cultural-historical process termed by Vygotsky as ‘higher mental functions’ and the process of meaning making (Vygotsky 1978). In contrast, it argues that for a Nordic approach to be fruitful, transformation processes should ensure creative processes of collaborative learning where new potentials and perspectives are constantly emerging while our word-meanings are challenged.
Building a common culture of writing during collective learning groups in pre-school

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In our Swiss context, play moments and collective learning groups disappear from our pre-school classes. Unfortunately, pedagogical practices are increasingly inspired by those of higher levels. However, it is necessary for the child to be able to enter into a school culture, that there is a balance between spontaneous learning in which the child follows his or her own agenda and reactive learning in which he or she pursues a specific teaching goal (Vygostki, 1935/1995).

During collective learning groups, children negotiate, share and create a common culture with their peers and teachers (Bruner, 1986; Vygotsky, 1934/1985). Corsaro (1994) speaks of interpretive production, because children do not simply and individually integrate adult culture, but integrate it through interactions with adults and creative productions with their peers. During these collective moments, children are encouraged to develop their learning skills in a participatory structure and to acquire the knowledge content provided by the teacher (Amigues & Zerbato-Poudou, 2000; Selleri & Carugati, 1999).

The purpose of this paper is to describe the role of the teacher and to understand how children appropriate and interpret the specific tools to participate in collective learning groups and the cognitive and metacognitive tools used to enter into the learning process of the written world. Our analyses are based on the dialogical analysis model of Muhonen et al (2016). This research is conducted on the basis of a corpus of 21 filmed sessions of about 20 minutes each and ritualized about twice a week over a school year with pupils of an average age of 5 years.
Micro-moments: Recognising opportunities for learning between young children and their fathers in a cross national study – an analysis of families in Mumbai

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In the second of the two papers focussing on learning as it occurs through the micro-moments of interaction between young children and their fathers, our analysis is on a pilot sample of three families in Mumbai, India. We work with the same model of learning and development proposed by Hedegaard and Fleer (2008), and draw on the same methodology and analysis (using Bugrimenko and El’konin 2001 and Bernstein 1971), as part of the larger pilot study.

In this paper, we begin to illustrate the mobile characteristic of the object-motive relationship occurring in father–child relationships within activity settings. In terms of relevance of national contexts, the paper highlights first, sibling relationships within the context of ‘Hindu’ families and how they may mediate father–child interactions; and second, how fathers were caught between old and new values living in urban Mumbai within ‘joint’ or nuclear family structures; indicating the historic and geographic origins regulating values underpinning father–child interactions. In this respect this second paper raises questions about how ‘each cultural group, as it developed over historical time, is both the evolving producer and the evolving product of cultural values, beliefs, practices relevant to prevailing material conditions’ (Freitas et al, 2008, p.162).

In the final part of the presentation, we propose a series of questions drawn from the two papers presented; our aim being to begin to develop a conceptual framework for a main cross-national study about paternal engagement and pedagogic relations, from the four countries taking part in this project.
Greenlandic screening tools for three and five year olds children

Naussunguaq Lyberth

Head of Department of Early Childhood Education, Greenland’s Government

This Poster is about screening tools for 3 and 5 year old children, adapted to the Greenlandic conditions.

The screening tools are the first material, which has been developed in Greenland, cooperation with the municipalities and their institutions.

The screening tools are called "Undersøgelse af Barnets Udviklingssituation” (UBUS 3 & UBUS 5) and are showing the child's state of health and developmental moments situation.

Presentation will focus on the screenings tools background, goals, content and application.
Teacher’s mediation during free play as a lever for pupils’ learning

Marie-Laure Michel

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In the world as it is evolving, less and less time is let for children to play. However, following amongst others the work of Vygotski, we argue that free play is essential for the child’s development dialectically linked with more structured learning at school and often not present outside school anymore either.

Our aim is double. First, we intend to document teachers’ mediations during free play. In fact, a lot of work has been done about the importance of play, but very few on the teachers’ guidance that can help immature play develop into mature play. Second, our aim is to end up with guidelines that will help future teachers have a better understanding of their role during free play to enhance learning.

According to the historico-cultural paradigm, we implemented a research design in 3 classes in Switzerland: 3 weeks in each class were filmed, 9 interviews made with the teachers and notebooks extensively completed. Multimodal analysis is being conducted on the films, always confronted with the interviews and notebooks.

The 3 teachers we followed, all experts in guiding free play, may have different guiding types but one same pedagogical aim: link this time to some kind of learning, as Pramling Samuelsson & Asplund Carlsson (2008) precisely show is accurate. This communication will allow us to illustrate how these teacher’s mediate free play by presenting the fine analysis of different interactional situations.
Young children as explorative, creative, responsible, ethical and productive members of the world at large – how can ECE equip children to meet and manage future challenges in life?

Angela Rekers

PhD student at University of Wales Trinity Saint David, and freelance at Forest School and Ecological Play Trainer.

This paper presents the findings of a PhD study of linguistically and culturally diverse 4 and 5 year olds within the classroom and forest school in an urban school, labelled disadvantaged, in Wales. The study is set within the context of The Foundation Phase Framework, the curriculum for children under 8 years, advocating exploratory experiential education (WG, 2015a).

The research aims to interpret the child’s situation of development through their motive-oriented participation in socio-material activity settings. The research objective is to use a ‘wholeness approach’ (Fleer, Hedegaard & Tudge, 2009) to consider both the expectations and demands of institutional practice and the opportunities therein for participation from the child’s perspective.

Building upon a cultural-historical, activity-based theoretical tradition, the study uses Hedegaard’s (2008, 2009) cultural-historical wholeness theory of development.

The methodology draws upon Hedegaard and Fleer’s (2008) dialectical-interactive approach for studying children. Participants included children, parents, teaching and forest school staff. Ethically-informed (BERA, 2011) data collection included observation, audio-visual recording, interviews and video-stimulated conversations, during 8 months’ fieldwork in the classroom and forest school.

The findings relating to children’s activity are presented using an ecological affordance framework for analysis (Bang, 2009). Specific events, chosen for analysis based upon conflict, are analysed to consider the affordances for the child’s developing understandings of self as a participant actively engaging across and within institutional practices. The results of the study reveal the tensions between policy and practice in context of Welsh Government strategies for early childhood education and ‘successful futures’ (WG, 2015b).
Toddlers’ outdoor play, imagination and cultural formation

Avis Ridgway, Gloria Quinones and Liang Li

Associate professors, Monash University, Melbourne, Australia

Discussion on toddlers’ outdoor play practices in different cultural spaces is rare. Better known in Australia, is commercial and educational promotion of physical development and well-being. Cultural nuances in toddlers’ outdoor play and how materials and artefacts influence learning and development are often overlooked. How does outdoor play impact on toddlers’ imagination and cultural formation? An Ethically approved research project “Studying babies and toddlers: Cultural worlds and transitory relationships” was conducted in three Australian long day care sites with six focus children (all toddlers). We use data from three toddlers and families to argue cultural formation processes in toddlers’ outdoor play, are more completely understood when daily life across home and local community is acknowledged. The data example of toddlers’ outdoor enculturation processes, includes an overseas visit to grandparents. Examination of toddlers’ outdoor play and imagination shows how toddlers’ cultural formation is impacted by family, community and multicultural contexts. Concepts of imagination and play drawn from Vygotsky’s cultural-historical theory in relation to Hedegaard’s institutional practices model, link contextual relations between society, community and family. Vignettes illustrate how cultural formation involves perspectives and dimensions of toddlers’ imagination. Visual narrative methodology supports holistic interpretation of vignettes. Findings show complexity of different cultural conditions that hold possibilities for imaginative transformations in toddlers’ play. Implications are that toddlers’ imaginative and culturally responsive outdoor play, aligns with availability of adult/peers, community values and varied local spaces. Through this, affective and dynamic outdoor interactions imbue cultural formation of toddler’s play and imagination with local personal meaning.
This study examined the relationship between the teachers’ concept of child-teacher interaction and child-teacher interaction quality in early childhood education (ECE) using survey and observational data from three provinces of China with the method of multiple sampling (96 kindergartens, 177classrooms, 177teachers). Three types of child-teacher interactions were considered under the Classroom Assessment Scoring System (CLASS) framework: emotional support, classroom organization, and instructional support. We designed the questionnaire on the concept of child-teacher interaction referring to the Classroom Assessment Scoring System (CLASS). Results indicated that the level of teachers’ attention to the child-teacher interaction has a direct positive effect on child-teacher interaction quality. Teachers who have insufficient understanding of the importance of the quality of child-teacher interaction have more requirements and discipline for children's behaviors and less opportunities for their free activities, emphasize the imparting of knowledge and skills while neglecting the cultivation of children's emotion and sociality, give more criticism than praise towards children. Teachers who attach importance to the child-teacher interaction can sensitively capture the needs of children and give positive responses, which is conducive to establishing emotional attachment with children, protecting children's self-esteem, caring about children's interests, and establishing an equal and harmonious child-teacher relationship. That effectively strengthening the teachers’ degree of attention to child-teacher interaction is the key to improve the quality of child-teacher interaction.
Valuing children’s lived experiences in different nations: Canadian and Tanzanian children’s multimodal perspectives on their school lives

Jodi Streelasky

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Developing cross-cultural understandings with children in our contemporary global society is becoming increasingly important, and many countries, including Canada (Schweisfurth, 2006), have begun adding content to curriculum documents that addresses this topic. This transformative initiative aims to enhance Canadian students’ knowledge of global cultures and their understanding of global citizenship. However, a current challenge is how to engage children in meaningful learning experiences that draw on a global citizenship approach in sustainable and engaging ways, and that embrace the characteristics of diversity and empathy. Understanding the ways children thrive in an interconnected, evolving global landscape and develop deeper understandings of other communities’ languages, cultures, histories, schools, and familial networks is also crucial to developing a global citizenship orientation. This presentation shares data from a 4-year project, framed by sociocultural theory, multimodality, and critical literacies. In the study, 26 children shared their valued school experiences through multimodal methods, such as, storytelling, movement, painting, drawing, and photography. Across both contexts, the data revealed more similarities than differences in the Canadian and Tanzanian children’s valued school experiences. The implications of this study are significant as young children develop values, attitudes, and behaviours early in life. Therefore, children’s participation in international collaborations has the potential to develop their cross-cultural understandings and disrupt stereotypes. Since societies depend on schools to introduce meaningful models of learning, it is imperative that children engage in cross-cultural learning from the onset of their formal education, as this pedagogical and inclusive approach has the potential to impact future generations’ worldviews.
"Vygotsky challenged by cultural changes from the 20th to the 21st century: the challenges of precocious schooling"

Claire Taisson-Perdicakis

Teacher, HEP Vaud, Lausanne Suisse

In Russia, in 1898, 40 to 70% of people who have learned to read and write did it elsewhere than at school. Early in the twentieth century children attend school from the age of 8-9 (Berelowitch, 1978). Nowadays, in many countries, reading and writing is taught in the form of a sub-discipline of French: entry into writing occurs very early. In the second stage of preschool age, between the ages of 5 and 7, "it's question of learning to read and write" (Vygotski, 1935/1995, p. 45). Nevertheless, at the preschool age, between 3 and 7 years old, the child "does what he wants but [...] he wants what the guide wants" (p. 36). What are the forms in that case of teaching and learning bearing of development to preschool age? Examples of learning collectives taken in France, Swiss or Quebec classes will be offered for analysis.

The methodology makes use of learning collectives' videos. The data is reduced to remarkable events and systematically analyzed. The comparisons between the different learning collectives in different classes show apparent regularities. Longitudinal analysis (on the same students followed during 2 or 3 years), highlights clues of their learning-development.

The results are as follows: ritualized activity is dominant; the layout of the teaching/learning situation is the unavoidable support of the work; the school form (Schneuwly & Thévenaz-Christen, 2006) is present but the teaching leans more on the knowledge of the pupils and less on a static program; learning is spontaneous-reactive; the lexicon combines the childish concrete terms and the abstract disciplinary terms; the learning object is studied sometimes sensorial or sometimes cognitively; the materiality (objects, lines and gestures) is a tool used by the teacher, this tool changes according to the students' knowledge acquired.
"Is this an ellipse?": A Video-based Micro-Contextual Analysis in Chinese Early Mathematics Class

- A cultural–historical perspective on teacher-child interaction

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Abstract: Teacher-Child interaction is one of the most important factors of the quality of early child education. The analysis of mathematics classroom interaction has been paid much attention in recent years. Based on a video case of 4-5 age children’s mathematics learning in a kindergarten, this paper adopts approach of microanalysis based on video and video-cue interview to make an empirical analysis from the perspective of social constructivism, the aspects of cognitive conflict, discourse structure, physical cognition and the participation of "things", which describing the behavior of teachers’ teaching and children’s learning in the classroom environment of Kindergarten and the characteristics of the interaction between teachers and children in early childhood mathematics teaching. Besides that, we present here three aspects for further discussion. Firstly, construct the early math-learning network, Secondly, explore the "third space" of mathematics classroom. Thirdly, move towards dynamic generative learning.
The changing practices in teachers’ play pedagogy in the Indonesian context

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“Learning through play” is implemented differently in many countries as a result of different understandings of play (Fleer, 2009; 2010; Lohmander & Samuelsson, 2015, p. 18). Drawing upon Vygotsky’s theorisation of play, a playworld approach is developed as a new play pedagogy that emphasizes the creation of joint imaginative play based on children’s literature in which children can explore play and learning themselves, and teachers actively participate in this exploration (Fleer, 2017; Lindqvist, 1995, Vygotsky, 1966). Although numerous studies in many countries have examined playworld (Bredikyte, 2010; Hakkarainen, 2004; Lindqvist, 1995, Fleer, 2017), there has not been an investigation of playworld in Indonesian context. This paper focuses on how teachers change their play pedagogy from a structured play practice as a local tradition on children’s learning to a playworld practice, as a new pedagogical tool in children’s learning in the Indonesian context. Guided by cultural-historical research paradigm, a total of 98 hours of video observations over 3 months of nine teachers interacting with 38 children (18 boys and 20 girls; 3.5-5 years; mean-age of 4.4 years) during daily group play activities and teachers’ video interviews were generated. The study found a change of teachers’ pedagogical practices from structured and teacher directed play practices to teacher’s child role-play pedagogy. These practices reflected the teachers’ understanding of play and playworld that influence their roles in the play. The change of the teachers’ play pedagogy indicated a positive impact of playworld implementation, a new play approach for Indonesian teachers.
The traditional Chinese conceptions of childhood

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The purpose of this paper is to make visible dimensions of the traditional Chinese conception of childhood, which continue to influence children’s learning and development in China today. There is scant discussion about traditional conceptions of childhood in contemporary China, as if these have been effectively erased or abandoned as a result of modernity projects. However, as I show through my research, local differences persist despite the spread of global modernity (Platt 2005).

This paper is based on a qualitative research project involving theory sampling and semi-structured interviews with 57 villages aged between 50s and 80s (Wang 2015). It focuses on a selection of findings about local traditions that form part of the conditions of children’s learning and development in China, especially in the rural areas. These include: 1. The villagers have a family-centred conception of childhood as becoming, as evidenced by rituals related to children’s births and deaths. 2. To the villagers, children’s participation in labour is not only necessary for the family but also for their development. Children’s light labour is often thought of as play and socialization. 3. Children have unique senses and thus perceptions (e.g. “the eye of the underworld”); relatedly, children also have unique vulnerabilities.
The adult-role in supporting children’s play in ECE

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A new legislation on ECEC in Denmark foregrounds children’s play and makes the pedagogical support of children’s play mandatory. But how should the professionals participate and support children’s play? The cultural-historical developmental approach has been, and is, a front-running theoretical framework from where to seek answers to this question. However, it promotes different adult roles in children’s play and maybe reflects different underlying assumptions about the developmental potentials in children’s play.

“Tools of the mind” is a solution that advocates for a strong adult role in children’s play, based on the assumption that child play can be more or less developmental and of high or low developmental quality (Bodrova & Leong 2007). However other approaches within the cultural-historical tradition advocate for a more collaborative approach where the adults cooperate with children more equally on play activities (Lindqvist 1995, Fleer & Hedegaard, 2010, van Oehrs 2013). In these latter approaches, it is less clear what high quality play is, and why adult participation is important/necessary. Is it meaningful to address children’s play with a view on play-quality developmentally? Are there in fact different views on what is developmental/important in play, affecting the view on merits and pitfalls with adult participation and role in play? This talk discusses these different interpretations of cultural-historically inspired approaches, with existing findings from research on adults playing with and guiding children’s play. Hopefully, this can help solidify recommendations for practice with regards to the difficult question of adult-roles in supporting children’s social fantasy play in ECE.
The Influence of Family Function on the Self-consciousness of Chinese children aged 5-6

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The present research, based on the survey of self-consciousness and relative family function of 128 children aged 5-6 in Shanghai, China, demonstrates the general features of self-consciousness development of children aged 5-6 and the influence of various dimensions of family function on their self-consciousness, and puts forward education proposals accordingly.

Adopting the Family Assessment Device (FAD) introduced by Epstein, the research carries out questionnaire analysis to assess the conditions of various dimensions of family function. Adopting the Children’s Self-concept Scale introduced by Piers-Harris and face-to-face structural interview to collect, encode and grade the answers from children, the research investigates the general development levels of various dimensions of self-consciousness. The research draws the following conclusions:

1. Children aged 5-6 rank above average in self-consciousness, with the dimension of behavior scoring the highest and the dimension of gregariousness the lowest. Parents’ education backgrounds, number of children in a family and Kindergartens’ rankings influence the self-consciousness of children.

2. The family function of children aged 5-6 ranks above average, scoring the highest in the dimension of problem solving and the lowest in the dimension of affective involvement. The number of children in a family influences the family function of children.

3. There is a positive correlation between the family function and the self-consciousness of children aged 5-6.

According to the above conclusions, the research proposes the following suggestions: enhancing family function; creating a family psychological environment beneficial to the development of children’s self-consciousness; learning scientific teaching and training knowledge and methodology through various ways.
Research on the application of folk games in kindergarten corner activities

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Suping Yang
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Play is an important channel for children to understand and explore the world. Folk games in China have attracted great attention of preschool educators because they are close to daily life with local characteristics and they are fun, flexible and of rich educational values. This action research explores how traditional Chinese folk games can be performed in kindergarten corner activities to make the best of folk games for children’s learning and development. The research is carried out in a kindergarten in Wuhan. Documents and observations are the major data sources. Research results indicate that folk games can not only promote children’s cognitive, emotional, social and other domains of development, but also play an important role in inheritance of traditional cultures. However, at present, folk games played in kindergartens are relatively simple and random, and the potential of them in promoting children's development has not been fully developed. The research suggests that preschool teachers should create a good environment, make use of folk games creatively tailoring to local characteristics, and integrate folk games with modern cultures, make good use of family resources, provide adequate material support for the implementation of folk games in corner activities. It is also important to enrich kindergarten curriculum with cutting-edge game theories to support the development of folk games.
We all recognize that children's education and development cannot be separated from the laws of historical and cultural development. But we also cannot ignore the inherent growth of children themselves. What kind of relationship between the two, especially in preschool education? Lev Vygotsky pointed us in the right direction. He believes that in the preschool education stage, the process of teaching should follow the process of children's own development. However, in the practice of children’s education, they regard the teaching process that meets the social and cultural requirements as the core of children’s education, which leads to the neglect of the rhythm and law of children's growth and the blind pursuit of "upward growth". Therefore, we need to discover and understand the "rooting" education that follows the nature of children's growth. By reviewing the literature and caring for the reality, the article from the children's education is rooted in education (seeking roots), children’s education should take care of childlike innocence (rooting) and children’s education should be rooted in the childhood (rooted) to demonstrate the significance of rooting. The significance of rooting lies in interpreting the true meaning of children's life, storing the potential of children's growth, and calling for the awakening of children’s education. Only if children’s education is rooted in their childhood (the hometown of the spirit), can the tree of children's growth be evergreen and the vitality of children’s education be maintained forever.
Integration of traditional Chinese culture in early childhood education

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Lina Shi
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Generally speaking, traditional Chinese culture has been integrated into early childhood education (ECE) in different ways in kindergartens across China. Though employing different ways, kindergartens usually use theories of Piaget and Vygotsky as their guidelines. Moreover, not all traditional cultures are welcomed in kindergartens. Especially, some spiritual culture such as one-hundred surnames (Baijiaxing), the three character classic (Sanzijing), have been criticized by contemporary Chinese ECE researcher. Although play and happiness are emphasized in kindergartens in China, parents do not give up their goals to promote their children’s academic achievements, such as reading and arithmetic, which has created a phenomenon that children play in the kindergarten and parents take different measures to promote their children’s academic achievement. This research tries to address the dilemmas mentioned above and to find out how to integrate traditional Chinese culture into modern ECE and balance play and academic development in ECE settings. Data are collected in the form of questionnaires. Two hundred parents in a kindergarten in Changchun have responded to our survey. This study has found that traditional culture has been integrated into ECE in different ways. Our results imply that the plays that have integrated traditional Chinese culture can be the major activity in the kindergarten. At the same time, the academic development pursued in traditional Chinese culture can be realized through cooperation of kindergarten and parents.
Exploration by young children is central to their development as persons. The aim of this symposium is to discuss the educational conditions that support cultures of exploration. Cultures are conceptualised in relation to subject matter traditions and in relation to local traditions for childhood education of play and care. The subject matter traditions drawn upon in this symposium are science, music and art. It is important of a varied approach in early childhood education for children’s development as a whole person, volitional, emotional and cognitive. How educational activities are created, aiming at children’s own compassionate engagement is the focus in the book. Hereby children are supported to become agents in their own daily activities, and the analytical focus is placed on how teachers and children contribute to accomplish this through creating exploratory activities.

In early childhood, children learn through participating in activities, although participation itself does not promote a sense of agency in children. Rather, agency is fostered through activities that urge small children to explore and become agentic. The study of subject matter cultures for exploration during different activities can enable a greater understanding of how children shape or are being shaped by such activities, how children become agentic in their everyday institutional lives, and how children develop through play and learning activities.

The conditions for children’s exploration can be seen as a web of material artefacts, societal traditions and cultural practices. Artefacts carry history and meaning from other places and times. It is in the activities with artefacts and social relations that children’s explorative actions take place, and this is where they acquire cultural competences and motive orientations.

Discussant: Marilyn Fleer, Laureate Professor, Monash University, Australia
Abstract 1: Kindergarten as a budding explorative scientific community

Anne Synnøve Ekrene Hammer,
Associate professor, Western Norway University of Applied Sciences

Children’s first encounter with science in kindergartens can lay a foundation for their later interest in science and development of scientific reasoning and meaning making. These are skills of profound importance for future generations, both on a personal level, and as members of societies that must cope with global challenges that requires scientific reasoning and understanding. How kindergartens approach science education should therefore be discussed and examined closely. The aim of my presentation is to contribute to this discussion.

The title Kindergarten as a budding explorative scientific community, point to my vision that children should be given opportunities to take part in kindergarten cultures dominated by openness to questions and eagerness to explore science related objects and phenomena. With Vygotsky’s theory (1998) about how children learn and develop as foundation, I claim (together with authors as Fleer & Pramling, 2014) that if we want children to learn and develop scientific attitudes and skills, children have to experience and be part of a community in which such abilities are visible and prominent. From a science education perspective children’s exploration coincide with science as inquiry and practices of science, which are key perspectives in the science education field today. Scientific exploration includes practices such as observing, asking questions, planning and carrying out investigations, argumentations and constructing explanations. These practices can engage children from an early age, providing focus that interests them. By being engaged in such practices directed to objects and phenomena in the everyday life of kindergartens, children’s motivation to learn about the world around them can be nourished. At the same time, such practices can lay a foundation for development of critical thinking and sense making.

In implementing an approach to science education in kindergartens based on the practices of science, kindergarten teachers’ scientific attitudes may be more important than their scientific conceptual knowledge. This should influence how we educate kindergarten teachers during their professional studies. Highlighting kindergarten teachers’ pedagogical competencies and directing them to scientific practices as suggested by Anderson & Gullberg (2014) may be one way to go. I look forward to discussing how to develop communities characterized by scientific attitude and practices in kindergarten as well as in kindergarten teacher education.
Abstract 2: Musicking: Children and teachers as music explorers

Tiri Beate Bergesen Schei

Professor, Western Norway University of Applied Sciences

In this presentation music and musical exploration is conceptualised through examples of children and teachers taking part in kindergarten music activities. Whether they are musical explorers or only music explorers is an interesting point of departure when examining their exploration with music. How the notion of musical connects to the exploration of music instruments is of vital interest to understand. While music exploration is the process of examining and being curious about sounds, rhythms and instruments, musical exploration refers to musicality and the embodiment of and sensitivity to music as a possibility for expression. During the exploration process, there are moments when embodiment happens, when the explorer becomes so devoted to that which is explored that the exploration is left behind and the doing is at the core. Such musical moments might be considered transition points characterized by immersive engagement in the activity. Current knowledge about the notion of exploration in early childhood pedagogical settings will be exemplified through two narrative descriptions in the more specific context of explorative activities. These examples might raise awareness of children and teachers’ exploration in institutional contexts, and add to understandings of conditions for such pedagogical practices. This implies implications for pedagogical knowledge of how institutional practices can open up or delimit children’s music and musical exploration.
Abstract 3: Exploration and process drama in kindergarten

Siv Ødemotland

Professor, Western Norway University of Applied Sciences

Process drama refers to a social, educational and artistic activity carried out by a teacher. This working method can be used to explore an everyday problem, a specific situation, or a theme. A teacher may choose activities from a variety of drama conventions and create activities that challenge children to actively investigate questions, issues or dilemmas from different perspectives. Process drama activities with kindergarteners are closely related to children’s imaginary play, and the two mutually influence one another. When participating in process drama, children may regard the activity as play; as it involves meaning, joy and excitement. Process drama is one means of openly encouraging children to explore. The teacher’s own knowledge, skills and playfulness influence this process.

Few research studies have examined the concept of exploration in process drama for children aged 3–6. I will briefly present the concept of process drama, and the close relationship between process drama and Vygotsky’s concepts of play and child development. Further I will clarify the connection between process drama and children’s dramatic play, and I will comment on the demands of the teacher or leader guiding process drama with young children. Through an example I will present how process drama may be a tool for exploration of the system of law, a courthouse, juridical conflicts, and trials for five-year old kindergarteners.
Abstract 4: How to combine play and children’s exploration in local setting as foundation for early childhood education

Mariane Hedegaard, Professor Emerita, Copenhagen University

Naussunguaq Lyberth, Head of Department of Early Childhood Education, Greenland’s Government

Children are active and intentional from birth and explorative activity is central in their learning from infancy. To understand exploration as central for children’s learning and development, the concept of cultural formation has to be included, because children’s learning and development cannot be seen outside a cultural and educational practice. The question is how to organize educational practice for the cultural formation of the child, so that s/he can continue to be active and intentional, and with the possibility to explore the world at large, the kindergarten and the school.

Tharp and colleagues put weight on children’s possibility to model community activities. Inspired by this and by the Radical-Local approach to school teaching an outline for preschool education will be presented taking departure in the everyday way of living in Greenland. Since Tharp and Hedegaard & Chaiklin orient their educational approach to school teaching a central change is that children spontaneous activity is more in focus. This is founded in Vygotsky’s conception that educational support in preschool should follow children’s intentional activities, activities directed toward everyday concept formation; in school the educational activity should support children to acquire the systematic scientific conceptions found in the different subject matter areas. To overcome the interpretation of Vygotsky that has dominated education we find it is important also to draw on the local tradition in music, art and science in early childhood education.

The chapter will conclude with an outline for an experimental approach of early childhood that support exploration in kindergarten with the local tradition of music, drama, art and science and thereby promoting cultural formation, that may be relevant for children’s both being able to express themselves in a varied way, acquiring concept of everyday events and being able to control themselves, all aspect that are important to school learning, without drawing school learning into early childhood education.
Evelyn Eggum

Masterstudent at Western Norway University College of Applied Sciences

Professional discernment in early childhood education

Research shows that newly-educated kindergarten teachers have challenges connected to the exercise of professional discretion in their professional practice. Student practice has a major role in the student's development towards becoming a professional practitioner. Therefore, it is relevant to examine how the in-service teachers support students in the development of professional discretion through supervision in student practice. My theoretical framework refers to the essential aspects related to the development and exercise of professional discretion. Molander and Grimens (2008) theory of the concept of discretion and Aristoteles’ (1953) three forms of knowledge, epistemes, techne and phronesis, are of significance in the enlightenment of the research questions. I have used a qualitative method, interview, where I have conducted two focus group interviews and one individual interview. The result show that the in-service teachers highlight the notion of judgment as central to their understanding of professional discretion. In addition to taking into account rules and frameworks, on which this action are based, to see others perspective and using common sense in their decisions is essential.
Practicum in early childhood education – the complexity of assessment

Assessment plays a crucial role for students’ achievements in higher education. Assessment of the practicum in the teacher education is a complex issue which has not been given sufficient attention in the research literature. The assessment serves multiple purposes that seem to be contradictory, and several problem areas have been identified in connection with assessment of the practicum. Assessment in the practicum in Norway’s early childhood education is a shared responsibility between the in-service teacher, the kindergarten manager and the supervisor from the university college. Through qualitative semi-structured life world interviews of in-service teachers, kindergarten managers and university college supervisors, the three actors’ perception of, and experience with, assessment in the practicum in the early childhood education at a university college in Norway, is examined to construct nuanced data on the actors’ respective activity systems. Cultural-Historical Activity Theory (CHAT) forms the study’s theoretical framework, while the hermeneutical phenomenological approach forms the basis for analysis. The study showed that the in-service teacher performs the largest portion of the assessment work alone which is often based on locally adapted criteria of assessment. This is based on issues related to the formal assessment form. The study also showed that the actors from the kindergarten disagree with the construct validity of the practicum and that there are several factors that limit the summative assessment.
Pedagogical implementation of ICT in Norwegian kindergartens – A cultural-historical perspective on digital competence

The theme for this thesis is pedagogical implementation of digital tools in the kindergarten practice. Through a cultural-historical perspective, the thesis will map out this implementation and what conditions are in play. Quantitative questionnaire is chosen as the method for data collection. Statistical analysis is then used to analyze these data. In addition, the TPACK model will be used specifically to analyze results relating to digital competence. The most important conditions in this context are education, the culture of each kindergarten, as well as economy. Hence it is concluded that more focus is needed on digital competence in early childhood education, and higher quality in the coursing of kindergarten employees is necessary. Over time, such measures can change the kindergarten's educational approach to digital tools from the inside.
Everyday democracy in the kindergarten

Democracy is put forth in the Norwegian framework plan for kindergartens as a central part of kindergartens work methods, but it seems that the kindergarten teachers focus too much on individual choices. Democracy in this master’s thesis is understood in the light of John Dewey, who wrote that democracy is a mode of associated living. The empirical material for the thesis is gathered thru a 3 week long ethnographical inspired fieldwork, where the aim was to find how children participate in their peer cultures. Through analyzing the findings with Gert Biesta three dimensions of education, I argue that play that is important for children's subjectivation processes in the kindergarten, and the children's peer cultures are important arenas for qualification and socialization. This study can help to extend kindergarten teachers' understanding of everyday democracy in kindergarten.