

Theme	Session title	Presentation title	Abstract of the presentation	Presenters
Socially strong ECEC: Session 5	The possibilities of outdoor and physically active education in ECEC	Joy in Motion is a nationwide physical activity and well-being programme aimed at early childhood education and care	<p>Joy in Motion is a nationwide physical activity and well-being programme aimed at early childhood education and care (ECEC). The Ministry of Education and Culture and the Finnish National Agency for Education are responsible for its strategic management. The programme is coordinated by LIKES Research Centre for Physical Activity and Health.</p> <p>The programme was published in 2015 with the aim of enabling every child to enjoy physical activity and get sufficient exercise every day. The free programme offers concrete steps and objectives for creating a physically active learning environment and operating culture.</p> <p>In the programme, the central operating method used in the development of a physically active operating culture comprises the integration of the activities into everyday life, broad-ranging development work and doing things together. Each municipality and ECEC unit can develop the active operating culture in its own way.</p> <p>The Joy in Motion self-evaluation survey is a tool that enables the participating ECEC units to plan and evaluate their activities. The self-evaluation survey provides a picture of the current preconditions for physical activity in ECEC units in the whole country. The results of the Joy in Motion self-evaluation survey are available in a virtual database and can viewed nationally.</p> <p>We present the operating model of the national programme, examples of measures that promote an active operating culture and the current state of the physically active operating culture in ECEC units.</p>	<p>Nina Korhonen, Specialist</p> <p>LIKES Research Centre for Physical Activity and Health</p>
		Designing the future	<p>Early childhood on the move – Vantaan liikkuvat päiväkodit tackles the pressing issues of physical inactivity among daycare aged children. At the core of all solutions in developing sustainable change in the culture of play and physical activity, should be the children and early childhood educators. In cooperation with Vantaa sports services and the department of early childhood education, we have developed a model which lets the children and staff take part in designing their play/work environments. Currently the model is being used in yard reconstructions processes (2-4 yards yearly) and in a “active learning environment” project which currently effects 8 pilot daycare centers. In both cases educators and children play a crucial part in designing their environments and experimenting solutions. The processes are facilitated by a multidisciplinary team combining practical and theoretical knowledge from the fields of sport sciences, early childhood education, information technology and environmental design. The objective of this model is to find new solutions in the physical-, psychic- and social environments to better match the objectives of a modern early childhood education plan. These solutions can be used in the future designs of daycare centers, indoors and outside.</p>	<p>Jani Heinonen, Liikuntapalvelukoordinaattori & Sanna Kanerva, Day care centre director</p> <p>City of Vantaa</p>
		Outdoor adventure education in Finland - Forest walks for all children	<p>Outdoor adventure culture including learning in the outdoors have a long tradition in Finland. Nature with outdoor physical activities has been a significant environment for all kinds explicit and implicit cognitive, memory and learning achievements by improving mental concentration, awareness and relaxation as well as physical condition. It also affects on behaviour later in the school. However, according research, physical activity especially in the group of school age children has increased considerably in Finland in the past few years due to technical applications and games. Unfortunately, experiencing the real world by senses is getting unfamiliar to more and more young people.</p> <p>The aim of the group: reflecting and finding new initiatives to experiential learning in the outdoors. (Max: 20 persons)</p> <p>In this presentation we (the workshop presenters/leaders) would like take you (the participants) to the Outdoors near the congress venue and take a short activity in natural environment. We shall walk in the Finnish natural forest and feel, see, smell and hear natural things. Let's just go walking and paying attention to the world within and the world without. After a suitable moment we'll stop, get us together and reflect our physical experiences and mental feelings. If possible, we'll make a small fire and cook tee or coffee in the natural setting.</p>	<p>Seppo J.A. Karppinen, Ed.D. (special education)</p> <p>Finnish Youth Centres</p>
		What makes a child move?	<p>Although physically active outdoor play is an ideal way to support children's overall development in early childhood education and care (ECEC) environment (Burdette & Whitaker 2003), many children may spend almost the entire day in sedentary activities (Soini 2015). To help change this trend, the purpose of this study was to observe the child's free outdoor play in an ECEC environment and to identify the physical environmental factors in which the child's free outdoor play changed from sedentary activity into physical activity. In our previous study (Iivonen et al. 2019), twelve children were individually videotaped for 60 minutes in the day care centre yard during the free play in the fall, winter, spring and summer. The time spent (min s) by each child in on different physical activities and sedentary activities was systematically observed with an observational software. The child, whose free outdoor play included the most sedentary activity during all seasons, was identified from the observations (total 46h 22min 17s). The first author re-observed (total of 4 hours) this child and recorded the physical environmental factors in which the child moved while lying, sitting or standing. Results showed that the child spent an average of 32% of time in sedentary activities. The study identified physical environmental factors (eg. in autumn, equipment, water, wet sand, and a large free space, and in winter, snow piles, shovels, potholes, snow unevenly distributed in the yard) that can be used to increase children's physical activity in ECEC in Finland.</p>	<p>Susanna Iivonen, PhD University lecturer & Donna Niemistö, Doctoral student & Arja Sääkslahti, Docent, Senior Researcher & Titta Kettukangas, PhD University teacher</p> <p>University of Eastern Finland</p>

<p>Socially strong ECEC: Session 6, Symposium</p>	<p>Adverse childhood experiences - what can we as professionals do?</p>	<p>Adverse childhood experiences and social inequality</p>	<p>Childhood adversity has a strong influence on the child’s future, independent of genetic or cultural effects. The strongest data come from The Adverse Childhood Experiences (ACE) research, which has demonstrated that the amount and scope of various adverse experiences during childhood have major effects on life-long educational achievement; health and wellbeing; and interpersonal violence. On the other hand, resilience has been shown to be related to both good early relationships, and learning opportunities, which can be called benign experiences. Thus, childhood experiences are important both from a developmental, social, and equality perspective.</p> <p>ACEs are stressful or traumatic events that children experience such as neglect, abuse, or violence at home; having a parent with mental illness, substance dependence, or criminality; and separation from a parental. About a half of studied populations in Europe and the US have at least one ACE. This, in itself, does not seem to be associated with an increase in problems. However, when the amount of ACE’s rises to four or more, the increase in learning difficulties as well as behavioral, emotional and social problems rises manifold. High or frequent exposure to ACEs, without the buffering support of a caring adult, can dysregulate children’s stress response. This toxic stress can disrupt brain development and cause the various difficulties of multiple ACE’s. Professionals in Early Childhood Education should be aware of ACE’s and their possible role in alleviating toxic stress.</p>	<p>Jukka Mäkelä, MD, Child Psychiatrist, Chief Expert</p> <p>Finnish Institute for Health and Welfare</p>
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Culturally strong ECEC: Session 3	Cultural diversity as a richness in ECEC	Building culturally strong early childhood education - parish and municipality as partners	<p>Early childhood education and care (ECEC) is part of a culturally transforming and diverse society. The diversity of religions and worldviews is increasing in Finland. Children need to understand their own cultural background in order to respect the one from others. It is one foundation for the peace in the society.</p> <p>How do we acknowledge the meaning of culture, religion and worldview in children's lives?</p> <p>The ground for culturally strong early childhood education is cooperation in multiple levels. The Early Childhood Education and Care (ECEC) in Finland cooperates much with the Evangelical-Lutheran Church. Parishes are also mentioned as one partner in the National Core Curriculum for ECEC. The cooperation is based on the common understanding that religion and worldview is an important part of children's lives. Many feast day traditions have references to religion and are part of the Finnish culture. Local parish can offer many possibilities of cooperation. For example the church building can be a learning environment.</p> <p>The model of "four baskets" is used to describe and define the collaboration of church/parish and state/municipality in ECEC and in primary and secondary school.</p> <p>The leaders of this session work in the Church council of the Evangelical-Lutheran Church in Finland.</p> <p>Ilkka Tahvanainen is a specialist on ECEC and has a long history in Espoo City and collaboration with the Espoo parish. Raija Ojell is the coordinator for early childhood education and family affairs.</p>	<p>Raija Ojell & Ilkka Tahvanainen, Advisors on Early Childhood Education and Care</p> <p>National Church Council</p>
		Preparing Culturally Efficacious Early Childhood Bilingual Education and Second Language Teachers	<p>Across the United States, early childhood professional organizations recognize the value of diversity and social justice, which early childhood teacher educators (ECTEs) may integrate issues of social justice into the curricula and educator program. However, as Boutte (2008) contends the actualization of early childhood equitable practices and curricula has yet to be realized. DeVore, Fox, Heimer, and Winchell (2015) conclude that ECTEs must continuously examine their practice to determine the impact on teacher candidates' notions and dispositions towards social justice issues. Essentially, the exploration of diversity issues requires a multifaceted exploration of the sociocultural, historical, linguistic, and political contexts and structural inequities that perpetuate the marginalization of diverse populations. At our university, we are implementing a culturally and linguistically efficacious approach and responsive praxis that focus on the culture, language, and ability of the learner for the preparation of early childhood teacher candidates and as a tool to explore identity, consciousness, positionality, and praxis. Extending the seminal work of Ladson-Billings (1994), Gay (2010), Darder (2011a, 2011b), Sheets (2005), and Sleeter, Neal, and Kumashiro (2014), Flores, Claeys, and Gist (2018) offer the Culturally Efficacious Evolution Model (CEEM) as an iterative, transformative model in which there is continuous exploration of self and praxis as a critical pedagogue. We will offer research-based examples that will help ECTEs build the capacities of candidates.</p>	<p>Belinda Flores, Associate Dean & Margo DelliCarpini, Vice Provost, Dean, Professor & Juliet Langman, Associate Dean, Professor & Iliana Alanis, Professor</p> <p>University of Texas at San Antonio</p>
		Worldview education as a part of culturally strong childhood education	<p>In this paper we will present pedagogical environments that support children's cultural understanding and support their awareness towards religions and other worldviews. The paper is based on the research project "Creating Spaces for Diversity of Worldviews in Early Childhood Education" which aims at developing ECEC teachers' professionalism and pedagogical imagination towards worldview education. ECEC teachers express a lack of competence in worldview education and thus, the pedagogical modelling is seen as a central tool for raising the quality of education. In culturally strong early childhood education, the diversity of many religions and other worldviews are present not only in the form of cultural heritage but as lived and experienced dimensions. As the Finnish National Core Curriculum for Early Childhood Education and Care (2018) entails, different worldview backgrounds of all families should be taken into account in every-day pedagogical planning and identities of individuals from various cultural groups should be fostered. However, this particular area of learning has raised a lot of anxiety among educators how to implement dimension of different worldviews in education in practice in non-confessional, non-binding way. Therefore, we argue that the cultural awareness and cultural sensitivity requires better understanding of worldviews as part of cultures. We will demonstrate how to develop rich, multi-sensory learning spaces that makes learning holistic, joyful and intellectually challenging, and helps to develop dialogue among religious and secular views.</p>	<p>Saila Poulter, University lecturer & Silja Lamminmäki-Vartia, Project coordinator</p> <p>University of Helsinki</p>
		Cultural-, worldview- and language aware education – new openings for teacher education	<p>This paper presents both practical and theoretical aspects for education that is aware and conscious of multifaceted diversity in educational settings. The project KUPERA, funded by the Finnish National Agency for Education, provides free material for educational professionals from the early childhood education to the upper secondary level teachers. This paper will demonstrate the materials of the web portal and the online course produced within the project, and offer the participants some insights of good practices, practical implementations and new openings for encountering cultural, worldview-related and language diversity in educational settings. The presentation illustrates practical features of the material through brief interactive exercises supported by theoretical framework of the material, including phenomena such as culturalisation, religionisation, and concepts such as worldview literacy and a call for teachers' self-reflexivity as a tool for dealing with diversity in an open, respectful and equal way.</p>	<p>Marjaana Kavonius, University Instructor & Niina Putkonen, Project Planner, PhD student</p> <p>University of Helsinki</p>

Culturally strong ECEC: Session 6	Evidence based approaches to culturally sustainable pedagogies	Teachers' perceptions of closeness, conflict, and cultural competence in the early childhood education context	<p>Considerable evidence suggests that the teacher-child relationship is one of the core components associated with children's later favorable cognitive, social and behavioral outcomes and school adjustment in the long term. At present, there is little scientific evidence on early childhood education (ECE) teachers' sensitive and responsive interactions and practices with children and their families from ethnically and linguistically diverse backgrounds. The aim of the study is to examine how Finnish pre- and in-service teachers who represent different phases of professional learning, perceive their overall relationships and cultural competence with children in the ECE context. The data was collected as a part of JUMP ALONG (www.osaamisenyhteisloikka.fi). We used a modified version of the STRS-SF for estimating to what extent teachers perceive their relationships with young children emotionally close or conflictual and developed a Culturally Responsive Interaction Scale (CuRe) on teachers' knowledge and beliefs regarding cultural practices. In our presentation, we report the factor structure and measurement invariance of the STRS-SF and the CuRe across three groups of teachers. We expect the closeness factor to be positively and the conflict factors negatively related to the factor structure of teachers' cultural competence. Our findings may foster awareness of pedagogically important social and cultural practices that can be used to renew teachers' competencies and further improve high-quality curricula of degree programs in early childhood teacher education.</p>	<p>Maarit Silvén, Professor University of Turku</p>
		Building culturally strong kindergartens through workshop methodology	<p>Education for cultural sustainability in early childhood education is a fundamental issue on the path towards sustainable futures. Research has confirmed that children's participation in local cultural practices influence values and behaviors and improve resilience. As the kindergarten globally is becoming increasingly diverse, it is important to understand and appreciate local cultural practices and at the same time develop knowledge and understanding of cultural practices as changing. A cross-cultural project comprising three Norwegian kindergartens and five Chinese kindergartens is designed to promote education for cultural sustainability. The project focus on kindergarten teachers' and children' exploration of their local neighborhood, such as local heritage, historical sites, local architecture, local storytelling and other cultural aspects of the community. The kindergarten teachers will share and explore their practices with the other participating kindergarten teachers through workshops. The purpose of this presentation is to highlight experiences from a workshop held for the participating teachers. The presentation is based upon visual data produced from the workshop presentations and the discussions among the teachers. The presentation will contribute to knowledge about workshop methodology as a mean to build culturally strong kindergartens. Furthermore, the presentation will address the issue of how kindergarten teachers can develop practices that are locally situated with global awareness.</p>	<p>Åsta Birkeland & Aihua Hu & Siv Ødemotland & Ruth Ingrid Skoglund, Associate Professors Western Norway University of Applied Sciences</p>
		AvoT – Open Arts Education Model in Early Childhood Education in Kuopio	<p>The AvoT – Open Arts Education Model has been developed by Children's Culture Centre Lastu, the School of Literature Arts Aapeli and the City of Kuopio. AvoT -models goals are to confirm the children's cultural rights, learning and well-being of a child. AvoT -model creates the sense of community and promotes the participation of the children and families. Model activates the families in cultural activities and to read together. It creates multi-professional co-operation and participatory working culture in early childhood education. AvoT -model also complements audience and community development of the arts organizations. The basis of the AvoT -model leans in the Early Childhood Education Curriculum: child-centered focus, diverse learning environments, participatory working culture, play-based pedagogy and exploratory learning. In The AvoT -models process a kindergarten group makes with the art educator an art project, which is based on the pedagogical needs of the group and the interests and wishes of the children and staff. The child literature, poems plays and the stories are the basis of the project, but the art educator uses also the other various art forms with the children. The used art methods are child-oriented and practical. The art educator works 8 weeks in the early childhood education group. The process begins with the orientation and observation of the group and it is ended with an exhibition, portfolio, performance or a community art project in the kindergarten. After the project the kindergarten is able to get mentoring for six months after the project from the art educator. The art educator is a natural part of the group's everyday life and also a solid part of the pedagogical team. It enables profound co-operation with the staff, and it is also a good environment to develop play based pedagogy in the group. The art project is the common narrative.</p>	<p>Anne Karjula, Art educator Lastenkulttuurikeskus Lastu</p>
		OMEP ESD Rating Scale as a tool for promoting sustainability in Finnish ECEC	<p>Finnish legislation and policy on ECEC express sustainability as a basic value. The NCC state that, during their years in ECEC, all children have the right to develop knowledge and skills for living a sustainable life. Furthermore, early years education should be permeated by the principles of sustainability. As such, sustainability can also be regarded an quality indicator in ECEC. However, research shows that staff in ECEC generally have a vague understanding of sustainability and are unfamiliar with implementing it in practice and pedagogy (Furu & Kaihovirta, in progress). Hence, the aim of this study is to explore how the translated and adapted OMEP ESD Rating Scale, also called ERS-SDEC (Siraj-Blatchford et al, 2016; Furu & Valkonen, in progress) could serve as a tool for promoting sustainability in Finnish ECEC. The research was conducted in 10 piloting ECEC settings in both Finnish- and Swedish-speaking areas of Finland. Each participating team filled out both the scale and a questionnaire reflecting staff experiences of piloting the scale. The research material was analysed through thematic content analysis. Based upon the findings, the translated and adapted version of the scale provides to be a suitable tool for collegial reflection and discussion on sustainability among staff in Finnish ECEC. Thereby it also enhances necessary transformations towards sustainability in practice and pedagogy. The study also makes visible the importance of collaborative practices in developing tools for continuous professional development and enhancing quality in ECEC.</p>	<p>Ann-Christin Furu & Satu Valkonen, University lecturers University of Helsinki</p>

Ecologically strong ECEC: Session 2	Children as responsible citizens	Education for sustainable consumption in kindergarten and in kindergarten education	<p>One of the important factors influencing the quality and success of sustainability education (ESD) in kindergarten is the quality and efficiency of the kindergarten education.</p> <p>In the first part of the presentation we would like to show the methodology and practice in the field of ESD in kindergarten education at University of ELTE. We select an important area of education for sustainability (e. g. what alternatives can we use to reduce consumption) and then we present how we are trying to sensitize our students, what competencies (knowledge, habits, attitudes etc.) of them have developed in the given topic.</p> <p>In the second part of the presentation we will present how our students work in their kindergarten practice with children on the above-mentioned sustainable consumption topic in the form of a project. Finally, we present the students' experiences and reflections related with ESD focused kindergarten practice.</p>	<p>Katalin Hill & Sarolta Darvay, PhD, Associate professors & Veronika Fülöp, Expert teacher</p> <p>Eötvös Lorand University</p>
		Children In Permaculture	<p>“The future of our planet depends on a change of consciousness, in which the people and the resources of the natural world are no longer taken for granted and exploited without considering long term impacts. Supporting children from early childhood to develop a sensitive, compassionate and cooperative relationship with each other and the natural world is a crucial step in generating this new consciousness” (p.1, The Children in Permaculture Manual; Alderslowe, Amus & Deshaies, 2018).</p> <p>Permaculture is genuine care for people, for nature and taking only a fair share of resources. Through permaculture, which is a process of observing ecosystems and following the same principles, food can be grown, homes, communities, buildings, projects, economic and education systems can be designed. However, it was not until recently that the permaculture ethics and principles were used to design a child-centred sustainable education and pedagogy.</p> <p>Children in Permaculture, an Erasmus+ funded project (2015-2018), was born by a team of 7 organisations from Romania, UK, Slovenia, Italy, Czech Republic, a state school and kindergarten in Scotland, an after-school centre in Romania and a member from Finland. The target group was 3-12 years to enhance continuum between the early years and primary school.</p> <p>As a result of the project, Earth Care, People Care and Fair Share in Education: The Children in Permaculture Manual was published for educators and parents to engage in a holistic approach with children, inspiring to go outdoors, learn from nature and become a co-designer of a regenerative education.</p>	<p>Gaye Amus, Environmental Educator</p> <p>Learning In Nature Ltd</p>
		Raising biosphere stewards	<p>Early childhood years are a crucial time for children to develop a caring and respectful relationship with nature. A holistic relationship with nature – or human–nature connection (HNC) as called in recent publications – is of extreme importance in today’s context characterised on the one hand by an increasing alienation with nature and on the other by intensifying sustainability challenges, which in turn are partly caused by this very alienation.</p> <p>Based on a case study in the Brazilian Amazonia, this research presents a pedagogical model that fosters and deepens children’s HNC. Using ACHUNAS, a recently developed framework to assess where and how children connect to nature, this research compared two pedagogical models, hereby called conventional and alternative, in terms of their success in supporting the development of a holistic HNC. The alternative model follows the principles of situated learning theory, anchoring the pedagogy in the everyday cultural reality of the Amazonian community.</p> <p>Based on participatory observations and semi-structured interviews, the alternative model was found to be better suited for fostering the development of a deep and multifaceted HNC. This model offers diverse opportunities for children to connect with nature through a myriad of activities with different properties, and these children were found to have a more developed HNC. The insights from this pedagogical model can be applied into other cultural contexts and in this way provide children with an education that supports them in becoming responsible biosphere stewards.</p>	<p>Vivika Mäkelä, PhD student</p> <p>University of Helsinki</p>
		Learning ecological sustainability by playing	<p>Sustainability issues are present every day in early childhood education. The systemic changes and decisions are made by the adults, but even the smallest children can be agents of change. With the help of games, stories and music the educators can raise awareness of sustainable lifestyle.</p> <p>Since 1990 Environmental School of Helsinki Metropolitan Area Reuse Centre has created and published numerous teaching materials for early childhood education on topics such as urban gardening, material cycle, sustainable consumption and Sustainable Development Goals (SDGs).</p> <p>This workshop will showcase some of our favourite teaching methods and materials. The idea is to approach environmental issues in an empowering way. Music for example affects the emotional side of a child’s life and helps processing information in a playful manner. Our music based educational session “Earth-play” invites children from age 2 to 7 to share a moment around earth-shaped canvas by singing, moving and making imaginary exercises. The meaning of environment protection is being taught in children’s own level of understanding. Real-life relevance with an hands-on approach also ignites sparks in kids to learn about sustainable lifestyle. Our goal is to provide educators with the tools to do this.</p> <p>Helsinki Metropolitan Area Reuse Centre is a social enterprise on a mission to improve the state of the environment by enabling sustainable lifestyle. We provide environmental education to over 40,000 children, adolescents, adults and educators each year.</p>	<p>Anu Kaila, Environmental education specialist</p> <p>Helsinki Metropolitan Area Reuse Centre</p>

Ecologically strong ECEC: Session 5	Cities of Wonder - urban learning environments	Architectural and Environmental Education in Salvos Project	<p>Salvos, the development project for architectural and environmental education, promoted children's multidisciplinary art practice and developed architectural and environmental education in the Finnish art education system called Basic education in the arts. About one thousand children participated, the youngest of whom were five years olds, so the project had a strong creative early childhood education contribution.</p> <p>Salvos included four arts schools: Art and Crafts School Emil, Lappeenranta Art School, Lohja School of Art and Art and Design School Taika. Project partners were Finnish Association of Art Schools for Children and Young People, Finnish Arts Promotion Center and Finnish Information Center for Architecture. The aim of the project was to develop the curricula and contents of architectural and environmental pedagogy in arts schools, and the project consisted of experiments, peer learning, exhibitions and events, teacher training and project documentation.</p> <p>Environmental education in visual arts continues to use the methods and means of environmental art (Naukkarinen 2007). Additionally, the interaction between architecture and visual arts has always been fruitful in Finnish education. Art-making as environmental research embodies experiential knowledge, which complements and challenges other disciplines (Mantere 2016). Salvos strengthened pupils' and teachers' personal relationships of both nature and built environment through artistic means. Art practices offered experiences and information about actions that have positive impacts on environment. The methods of experiments and empathy (Biesta 2012) were found to be an excellent foundation for understanding environment and the interaction society. Salvos proceeded with emphasis on playful learning towards a sustainable way of life.</p>	<p>Dr. Riikka Mäkiköskela, Executive Director & Johanna Kivioja, Principal, Project Coordinator</p> <p>Finnish Association of Art Schools for Children and Young People /</p>
		Local weather landscapes - Conditions for learning to cope and to become explorative	<p>This paper aims to describe and discuss what local weather-landscapes mean to children and how weather imply exploring bodily sensations and capabilities Through a narrative inquiry approach, also including studies of archival data and fieldnotes, I will present an analyses how local and personal experienced weather events imply what we call 'cultures of exploration' in institutional practices. The epistemologies are crossing the specter of cultural-historical, pragmatic and deep ecological philosophy. For a period of near three years I have followed a community artist working with labor and problemsolving, exploration and creativity in kindergarten.</p> <p>Through this study I exemplify how experiencing a local weather landscape is intertwined into pedagogical practices such as habituating the body to cope with cold and wet weather, learn danger in wild nature landscape and valuing species was a powerful practice and to solve problems. The descriptions exemplify 'Cultures of exploration' as a pedagogical approach.</p> <p>In times of an increasing climate crisis on the planet, the value of the findings is to foreground new insights, awareness and knowledge relevant for children, for early-childhood education, and for life and societies at large, so that better care, protection and education of children can be developed. This paper has the potential to show how weather events is intertwined in institutional everyday practices and how children, through exploration, learn to cope with seasoning weather-landscapes and local cultural adaptations.</p>	<p>Elin Eriksen Ødegaard, Professor</p> <p>Western Norway University of Applied Sciences</p>
		The whole city as a learning environment - Teachers as pedagogical developers	<p>The whole city is a learning environment in Helsinki. The built city landscape, the nature environment, the culture and sport services the city offers are available for the children in early education. The city inspires all the children to learn and experience. The goal of using the whole city as a learning environment throughout the child's learning path is a part of every curriculum from early education to upper secondary school. In this presentation we'll show how this goal is reached in practice in our early education. We will also highlight developing teachers' skills. In Helsinki early education pedagogy and versatile learning environments are developed together with the teachers' development networks. The teachers are the experts of their own work and the close co-operation is a key to develop the pedagogical practices. Helsinki's special features and needs are taking into consideration within the pedagogical development work.</p>	<p>Nina Onufriew, Pedagogical specialist & Marjo Kyllönen, Head of Development Unit</p> <p>City of Helsinki</p>
		The Pike and Friends as sustainable development messengers	<p>Pargas city consists of 10 000 islands. We have 800 children in early childhood education, living on different islands in the widespread municipality. In 2009, a concept called "The Pike and Friends" was created to bring a sense of community among the children in daycare and emphasize sustainable development in everyday life.</p> <p>The Pike and Friends is a school of cuddly toy fish that circle from group to group within daycare. They have been around for ten years, bringing a new theme for the children to play and work with every second year: children's rights, recycling, the underwater world of the Baltic Sea, from farm to fork and beyond, and island culture in the archipelago. The goal is to awaken an interest in the surrounding nature, environmental issues, sustainable development and island culture in the archipelago.</p> <p>Children all over the municipality are well acquainted with the Pike and Friends, and are therefore always happy to play with them and engage in different activities according to the theme. When the Pike and Friends are visiting a group of children, they attend all activities children do: playing inside and outside, going on a trip to the beach, spending time in forest, growing vegetables in the garden, composting, taking a nap, eating etc. The theme at hand is worked with through playing, doing research, investigating and trying. Always bearing in mind that the cornerstones of the concept is awakening the children's interest by taking children along and listening to their thoughts and ideas.</p>	<p>Aija Mäkinen, Project manager & Emma Storgård, ECEC teacher</p> <p>City of Pargas</p>

Pedagogically strong ECEC: Session 3	Leadership - empowering equality	Inclusive leadership in early childhood education and care	<p>The aim of the study is to find out what kind of views early childhood education managers have about inclusion, how to integrate inclusive education into the leading of education? Key values of inclusive education are equality, participation and respect of diversity (Unesco 1994). Inclusion is influenced by attitudes, participation, structures, professional knowledge and skills (Bricker 2000; Jones 2004; Odom 1998). The theoretical framework for this study draws upon inclusive education (Ainscow 2007; Booth 2011; Pihlaja 2009) and leadership theories, especially pedagogical leadership (Fullan & Leithwood 2012; Rouse & Florian 2012). This study uses mixed method. Quantitative material was gathered by questionnaires (n=120) and qualitative material by interviews ECEC managers. Analysis is statistical SPSS and content analysis. The respondent's identity is not recognizable.</p> <p>The results showed that top level ECEC leaders job descriptions varied a lot. An inclusive way of thinking was unclearly understood, and the implementation was not easy. Leadership-concentrated have a more positive attitude towards inclusive values than those prefer management. Changing the traditional working practices takes time and requires new methods to lead change. Leading inclusive pedagogy is leading diversity. This also means redistributing the manager's responsibilities. The leaders does not need to know everything. They have to get the right people to the team. Inclusive education accepted, but it requires professional skills, resources and a pedagogical discussion.</p>	<p>Paula Laakso, PhD Student & Päivi Pihlaja, PhD, Adjunct Professor, University researcher</p> <p>University of Turku</p>
		Holistic approach in early childhood education	<p>The aim of the presentation is to investigate the implementation of the holistic approach to learning in Finnish and Norwegian ECE. Holistic approach accomplishes by blending the child-led and teacher led approaches and pedagogy of basic activities consciously and goal-oriented in different daily situations in order to achieve pedagogically strong ECE. Finnish and Norwegian core curricula for ECE are based on holistic approach. However, guidance for how to implement holistic approach in practice is limited. Because of that understanding and implementing holistic approach may vary between ECE teachers. Therefore, the aim of the research is to investigate how holistic approach to learning is implemented in Finnish and Norwegian ECE centers and how ECE teachers lead holistic pedagogy in their own group. The data was collected by shadowing method. Total of six ECE teachers from Finland and Norway were shadowed. The shadowing method produced rich data, that covered ECE teachers' pedagogical activity in all ECE situations during 14 whole working day. The Data was analyzed using both deductive and inductive content analysis. The results of the study showed, that ECE teachers used flexibly spontaneous child led, pre-planned teacher-led and pedagogical possibilities of basic activity situations. Holistic approach to learning was implemented through integration of the organization of the activity, conscious facilitation of the subject areas, motivation and multiple support and care as well as flexibility in order to promote children's learning, development and wellbeing.</p>	<p>Johanna Heikka & Titta Kettukangas, University Lecturer</p> <p>University of Eastern Finland</p>
		Discourses on equity, equality and gender sensitivity in local curricula for early childhood education in Finland	<p>In this presentation I focus on how equity, equality and gender sensitivity are constructed discursively in local curricula for early childhood education. In Finland, equity and equality must be promoted in all areas of life and one of its means is gender sensitive education. The data for this study consists of eighty-two (82) local curricula for early childhood education that came into force in 2017. The research moves theoretically in the context of gender studies. In critical discourse analysis, I produce from the data five discourses that construct gender sensitivity. The main result is that the gender equality discourse in local curricula is already quite strong in the 2010s, but the way forward towards gender equality in early childhood education is still very ambiguous and remains unspecified in local curricula for ECE. Therefore, there is a need for clearer, more concrete and child-centered guidance in the design, implementation and evaluation of gender sensitive pedagogy in curricula for early childhood education. In addition, there is a need for, among other things, staff training, competent pedagogical management and systematic development of an ECE culture.</p>	<p>Susanna Itäkare, University lecturer</p> <p>University of Turku</p>
		Improving pedagogical practices and young children's participation rights in ECEC	<p>The UN Committee has claimed that Finnish professionals working with children know the Convention on the Rights of the Child poorly. The UNCRC and the Act on Early Childhood Education and Care highlight that children's voices need to be heard in all matters affecting. Children's participation can be a clear aim, as illustrated in the Rudiment of the Curriculum for ECEC, but the actualisation of young children's participation may be challenging because of the vague definition of participation and the lack of more specific pedagogy for participatory practices. There is, simultaneously, need to develop educators' expertise to work with the demands of participation of increasingly heterogeneous ECEC groups. The development project of teacher education OIVA—Children's rights and participation in ECEC, preschool and first grades offers conceptual and methodological competencies to develop children participation in ECEC and at school. This study will explore whether the OIVA-project was able to enhance educators' professional skills to promote young children's participation, to recognise and react to situations that limit children's participation and to prohibit discriminating practices in ECEC. The respondents were ca. 50 students and professionals studying key questions together concerning children's rights and participation. The data comprise of pre- and post-survey and interviews of the students. The preliminary findings highlight that the OIVA-project increased the students' competences in participatory pedagogical activities to enhance diverse children's rights and participation.</p>	<p>Merja Hautakangas, University teacher & Eija Sevón, Senior researcher & Paula Hautala & Minna Ranta & Olli Merjovaara & Marleena Mustola, University teachers & Maarit Alasuutari, Professor</p> <p>University of Jyväskylä</p>

Pedagogically strong ECEC: Session 9	Digitalization in ECEC	Media Paths - Enhancing a goal-oriented approach on media literacy for early childhood education	<p>As children are living surrounded by media culture, the importance of media literacy should be broadly recognized in societies. In Finland, the National core curriculum for early childhood education and care (ECEC) obliges the ECEC providers to carry out media education as a part of comprehensive education and thus enhance media literacy and other important civic skills on media culture. However, the implementation of media education varies in the field, and pedagogically strong, supporting materials are needed.</p> <p>Media Paths (Mediapoluilla) resource introduced in this presentation, aims to inspire, encourage and guide educators to pedagogically plan and implement goal-oriented media education for young children in different age groups. The material answers the following questions relevant for the ECEC professionals: 1) How to media educate when you are unsure of your own media skills? 2) How to implement the National core curriculum for ECEC in terms of media education? 3) How to ensure the chosen approaches are goal-oriented and pedagogically valid?</p> <p>This presentation will give an overview of the resource and discuss its aims and main contents: the media paths for 1) children, 2) educators, and the 3) professional communities. The aim of the presentation is to support the ECEC practitioners to develop goal-oriented everyday media educational practices with accessible, easy-to-adapt framework.</p>	<p>Julia Alajärvi, Senior Advisor National Audiovisual Institute</p>
		Paro-sealrobot in early childhood education in the pedagogical environment	<p>The thesis explores the potential of robotics in early childhood education. Paro-sealrobot is for the first time used in early childhood education in Finland and world. The aim is to find out the suitability of Paro in early childhood education. How can it be used with children under three years of age.</p> <p>This thesis focuses on the robotics experience and creates a debate on the use of robotics as part of technology education in children's evolving pedagogical learning environments. Raising interest in robotization and its potential as a catalyst for learning in early childhood education. Allow children the chance to explore and deploy robotics in their everyday learning environments.</p> <p>Paro (MCR-900) has been twice chosen as the world's most therapeutic robot by Guinness World Records. The use of the Paro-sealrobot in e.c.e. encourages play, interaction and exploration and brings joy and tranquility. Things learned in early childhood produce profound memories and skills which are automatically used also as we grow up. Together with children, issues related to the use of robots and security can be considered. Ethics and the human relationship with the machine is an important topic of discussion and research in the future.</p>	<p>Mirka Czéh, Head of the early childhood education unit & Reetta Wirtanen, Early Education Language and Culture Teacher City of Espoo</p>
		How to Teach the Future	<p>Kindergarten Väike Päike mission is to support every child in the process of developing into a creative and initiative person, able to cope in a modern living environment valuing himself and others. We lead and develop children for what may not exist today predicting what skills will be needed in the future. Digital skills are becoming the second mother tongue of children - we need to navigate the digital world safely and face the technological challenges. Researches prove that children benefit from technology - it stimulates basic skills, provides real-world preparation and motivates learning in new ways (Hatch, 2011). It is important to ensure that adults are qualified and aware of the use of digital technology, understand the risks they offer and the opportunities to effectively guide children in this area (Couse & Chen 2010).</p> <p>According to a parent feedback survey conducted by Kindergarten Väike Päike in October 2019, 91% of parents consider it important to provide technological education in pre-school age and 96% believe that digital awareness helps a child understand and prevent the dangers of the digital world and using digital tools motivates children to engage more and diversify their activities.</p> <p>Developing digital skills is part of a Project Based Learning. Kindergarten Väike Päike teachers know that robotics and digital activities make children's eyes shine - our challenge is to show children and parents what practical benefits and skills can be developed through technology-enriched activities that in turn support STEAM skills development.</p>	<p>Kärolin Kaarlep, Manager & Marii Maamägi, Educational Technologist Lasteaed Väike Päike</p>
		Pikkumatikka online courses support early math education in Finland	<p>The main aim of Pikkumatikka [Little Math] online courses is to support the professional development of pre- and in-service early educators' skills, knowledge and motivational aspects about early mathematical development. A long-term goal for the online courses is to help early educators to provide children with the basis for sustainable interest in mathematical thinking and prevent early deficits of mathematics learners during the very first years of mathematics education. Related research project involves designing and testing of PD online course with supporting elements and conducting follow-up studies of the online course effects on educators and the children in their groups.</p> <p>More specifically, early educators' professional vision for pointing out children's mathematical thinking in play and everyday life situations will increase by active participation in the courses. This novel, research-based approach is based on using meaningful everyday situations and children's interest in teaching mathematical skills. Participating educators' professional vision will be developed through both hands-on and reflective activities in combination with critical video episodes and guided lessons. Example activities will be shared in the presentation. The set of Pikkumatikka online courses creates a novel network of early mathematical development practitioners, researchers, and digital learning environment experts. Finally, the scalable online course facilitates access for a wide network of users, who can share and reflect their experiences and example activities online</p>	<p>Minna Hannula-Sormunen, Professor University of Turku</p>

Pedagogically strong ECEC: Session 6	Documentation, evaluation and positive pedagogy	Planning of a child's educational support in pedagogical documents	<p>Drafting of an individualized pedagogical document for a child is a typical practice in early childhood education and care (ECEC) especially when a child has needs for support. Documentation has indeed many possible benefits. As its best, a pedagogical document works as a tool for teachers and educators to concretize what pedagogical measures need to be utilized in order to a child to learn, develop, and feel well. However, previous research has shown that instead of focusing on pedagogy, documentation often illustrates mainly problem-oriented picture of a child. At the same time, even though the drafting of a pedagogical document is a great opportunity to support a child's and parents' participation in ECEC, children and child parents are typically given a subordinate position when compared to the professional ones. As documentation as an institutional practice can be seen as consequential, this can have also negative consequences for a child.</p> <p>In this presentation, I illustrate topical challenges as well suggest some possible solutions about how to draft a pedagogically strong pedagogical document for a child who has needs for support in ECEC. The presentation focuses on how to write about 1) a child's needs for support, 2) pedagogical measures and practices as well as 3) the perspectives of a child and parents a pedagogical document. The presentation is based on a research project, where I conducted linguistic analysis of the longitudinal document data (N =314) from 108 Finnish children.</p>	<p>Noora Heiskanen, Post-doctoral researcher</p> <p>University of Jyväskylä</p>
		Pedagogical documentation tools in ECEC of Kerava city	<p>In the city of Kerava we have developed for several years the use of the child's digital portfolio and the evaluation of the Deep Learning Theory (Michael Fullan, New Pedagogies for Deep Learning) in ECEC. In our presentation, we highlight the use of digital portfolios as a tool for pedagogical documentation and the use of Deep Learning Theory's skill steps in evaluate ECEC pedagogical actions.</p> <p>With the help of the digital portfolio, the child will be seen and he or she can plan, participate and evaluate the action, and teachers can develop and plan ECEC easily.</p> <p>In our presentation we highlight three different types of skill steps based on deep learning. The children's "friend and teamwork" of skills steps have been made with children. To evaluate the sensitive interactions and cooperation between guardians and staff, we have developed the skill steps for guardians and staff sensitive interaction.</p> <p>The third skill steps have made to evaluate quality criterions which have derived from Karvi's (2018:24) two process factors' quality indicators: Leadership at the level of pedagogical activity and Interaction between staff and children. We developed quality criterions from these quality indicators. To evaluate the fulfillment of these quality criterions, we developed the third skill steps.</p> <p>The tools described above will make Kerava's ECEC more visible, more according to children's needs and higher quality. Our presentation includes videos and pictures of the using the deep learning's skill steps and digital portfolio to develop ECEC.</p>	<p>Hanna Sulonen & Sari Lehto, ECE and Education Experts & Heidi Kajan, ECEC Teacher</p> <p>City of Kerava</p>
		Pupils' starting level in numeracy and literacy in grade 1	<p>The context of this study was a national assessment of learning outcomes of first-graders. It was the first phase of a longitudinal assessment of learning outcomes in basic education. The aim of the assessment is to get information about changes in students' competence curves focusing in mother tongue and literature and mathematics (National Core Curriculum, 2014) during the years of basic education. The learning outcomes of the same pupils will be assessed again in grades three, six and nine.</p> <p>The target group of the assessment was the children who started their first grade in fall 2018. The national sample included 7770 pupils around Finland. In addition, we collected data from their principals and teachers, as well as their parents.</p> <p>This paper seeks to address the following questions:</p> <ol style="list-style-type: none"> 1. How is the pupils' starting level in literacy and numeracy in the beginning of grade 1? 2. Are there gender differences in pupils' skills? 3. Are there areal differences in pupils' skills? <p>The skill differences between individual pupils were great. The birth month and parental background were linked to pupils' skills. The girls' overall result was slightly better than the boys' result. Nevertheless, differences between genders were small, likewise the differences between urban and rural area. Instead, there were differences inside these areas – mainly inside the cities.</p>	<p>Annette Ukkola, Project Manager & Jari Metsämuuronen, Senior Evaluation Expert</p> <p>The Finnish Education Evaluation Centre (Karvi)</p>
		Positive pedagogy in the kindergarten	<p>In my thesis, I have studied how the kindergarten documents can be implemented in early childhood education teachers work with regard to a positive pedagogy and what kind of functions is actively in use. As I present my requirements, I will focus on how positive pedagogy is reflected in the curricula and how they play a role in the kindergarten use of the teacher. In positive pedagogy, the traditional learning goals are strengthening with the individual's overall well-being. Child well-being is understood increasing conditions for effective learning. Positive pedagogy focuses on preventing problems, positive experiences and promoting well-being. In my research I have collected data on interviewing highly qualified early childhood teachers together by carrying out a survey. Five categories of positive pedagogy emerged as the basis for the interviews: teacher-child relationship, positive learning experiences, children autonomous support, children's relationships, and adults' relationships. The survey proving that the self-assessment of teacher's performance of the curricula and positive in pedagogy is average implemented but qualitative differences was found. According to my research on the quality of early childhood education effects are the age of the teacher, work experience, the structure of the children's group and the background training of the teacher. When pedagogy is of high quality, the teacher should also pay attention to whether the child has the resources to learn. In my presentation I present the key factors that create conditions for quality pedagogy.</p>	<p>Samuli Ranta, Doctoral student</p> <p>University of Lapland</p>

Economically strong ECEC: Session 2	Economically strong policies in Finland	Varda - the data warehouse for early childhood education and care	<p>The national data warehouse for early childhood education and care (Varda) contains nationwide data on early childhood education and care (ECEC) actors, ECEC units and their employees, the children attending ECEC and their guardians.</p> <p>Municipalities and joint municipal authorities organising ECEC have recorded data in Varda since 2019. From the beginning of 2020, the obligation to record data will be extended to also apply to private ECEC providers.</p> <p>Varda provides commensurate, comparable and high-quality data e.g. on the numbers of children in the different forms of ECEC organised and e.g. on the numbers and the educational background of the personnel. ECEC actors are required to produce data according to the Act on early childhood education and Varda's data list.</p> <p>The data recorded in Varda is used, for example, in the development and decision-making in ECEC, in the performance of official duties and in research. In addition, it is used in compiling statistics for national and international use.</p> <p>Provisions on Varda are laid down in the Act on early childhood education and care. Varda is maintained by the Finnish National Agency for Education.</p>	<p>Kukka-Maaria Berg, Project Manager & Elisabeth Alanen & Laura von der Hagen, Senior advisers</p> <p>Finnish National Agency for Education</p>
		Helsinki – the most impactful place for learning	<p>Helsinki is made into an innovative, experimental, city for lifelong learning.</p> <p>Helsinki residents have equal opportunities for education. Early childhood education make for attractive, nearby education services for families. The principle of free early childhood education is promoted so as to be free of charge for at least four hours a day starting at the age of five. Early childhood education emphasizes quality, staff permanence, and a safe everyday life.</p> <p>Economically sustainable education consider, good planning and quality. It is goal- oriented and done together with a child's guardians for the purpose of promoting the child's learning, well-being and interaction skills.</p> <p>High quality early childhood education prevents exclusion and drop out from the society.</p>	<p>Marjo Kyllönen, Head of Development Service Unit & Satu Järvenkallas, Head of Early Childhood Education</p> <p>City of Helsinki</p>
		Together for sustainable future - Unique collaboration between Early Childhood Education and Local University	<p>In 2017, LUT University and the City of Lappeenranta launched a new form of education collaboration. Junior University activities are based on the principles of the pre-school curriculum set by the National Board of Education and the contents have been designed in close cooperation with teachers, University's experts and local companies. Annually, the programme engages about 400 kids in early childhood education and their teachers.</p> <p>The programme implements exploratory learning through observation and experimentation. It ensures that preschoolers become familiar with sustainable living and guides children to observe technology, to test and invent their own solutions.</p> <p>A ready-to-use educational kit is distributed to every preschool group. Kit includes handbooks, fairy tales, music, activity tasks, research tools and operational tips for teachers on circular economy, clean energy and clean water. Teachers have been trained to use these materials in their own teaching activities.</p> <p>At Junior University, preschoolers learn about energy consumption and saving possibilities. All the preschoolers are guided to recycle properly because savings in natural resources through waste prevention and recycling are of great importance. Kids also investigate water leaks, measure the water consumption and discuss water savings at home.</p> <p>We teach and create hope for children that each of us can contribute to the fight against climate change. We believe that through children the know-how about sustainable development reaches their families - making our city more sustainable year by year.</p>	<p>Kati Koikkalainen, Coordinator, LUT Junior University & Riikka Jaala-Pesu, Teacher of early childhood education</p> <p>Lappeenranta-Lahti University of Technology LUT</p>
		Second hand handicraft materials as an example of sustainable practices in early childhood education	<p>Early childhood educators are important role models for children in sustainability. Kindergartens could decline their environmental impact in many ways, the purchases being one factor. What are the environmental savings in the use of the natural resources and why is this important? The Master Thesis study focuses on the possible environmental savings in handicrafts using MIPS (material input per service unit) values. What are the environmental impacts when using new materials vs. second hand materials? What could motivate early childhood educators to use second hand materials instead of new materials and what kind of processes and guidelines for purchases are needed in order to achieve this?</p> <p>The Helsinki Metropolitan Reuse Center has free-to-take handicrafts materials in eight Reuse Centers around the Metropolitan area. This study uses the environmental savings in these materials by comparing of MIPS in second hand and new materials used in handicrafts. The Reuse Center wants to help kindergartens to be as sustainable and ecological as possible. We also want the children to be raised so that they are aware of the environmental impact of their own actions. The handicrafts have a very important pedagogical meaning and are something that every child has made in kindergarten. With that being, it's a very concrete way of teaching sustainability; to minimize the use of natural resources and to decline the amount of waste.</p> <p>Study focuses in calculations of environmental savings and on an inquiry for early childhood educators about their motivation, values and ideas.</p>	<p>Johanna Sunikka, Environmental Specialist</p> <p>The Helsinki Metropolitan Reuse Center</p>
European sights for developing early childhood education and care		<p>International policy perspectives and experiences influence national and local debate and decision making in ECEC. This session with European sights will continue the discussion opened during earlier conference plenary sessions. Two key note speakers – Policy Officer Géraldine Libreau from the European Commission and Professor Marja-Kristiina Lerkkanen from the University of Jyväskylä - will open up and combine policy perspectives and large scale European research findings. The keynotes will be commented on by Counsellor of Education Tarja Kahiluoto from the Finnish Ministry of Education and Culture. You are welcome to ask, challenge and join the shared discussion. The session is facilitated by Pia Kola-Torvinen and Petra Packalen from the Finnish National Agency for Education.</p>		