EARLI SIG5 2022 CONFERENCE

Learning and Development in Early Childhood

Tuesday July 12– Thursday July 14, 2022

Changing times in ECEC: New opportunities for fostering development and improving sustainability

Abstract book

Utrecht University, Utrecht, The Netherlands

Tuesday, 12 July 2022

Wednesday, 13 July 2022

Thursday, 14 July 2022

Tuesday, 12 July 2022

Keynote I [11.30–12.30]

Session A [13.30–15.00]

Session B [15.30–17.00]

Keynote I – Prof. dr. Hiro Yoshikawa [11.30–12.30]

Early childhood development and program implementation in refugee and COVID contexts: Lessons from the Syrian and Rohingya refugee response

Early childhood development in emergencies and displacement has particular challenges that distinguish it from ECD in other contexts. First, there are are a variety of crisis situations and adversities, some of which are immediate and some of which are long-term. Second, there are at least two cultural groups potentially interacting in situations that involve forced displacement and migration. Third, from a research standpoint it can be difficult in rapidly shifting crisis settings to collect the multi-method data that are required to co-develop, implement, monitor and evaluate culturally and contextually grounded ECD interventions. Fourth, participation from displaced populations themselves can be challenging depending on the two sets of systems that may be involved (that of international humanitarian architecture, if it is involved; that of the host government, institutions, civil society, if those are involved). This presentation will outline these challenges and provide examples of results from partnered ECD research in the unique cultural, linguistic and humanitarian context of the Rohingya in the large camps of Cox's Bazar district, Bangladesh.

Session A1 – Paper session [13.30–15.00]

ECEC Teachers' Perceptions of Parent Collaboration and Support for Dual Language Development in Multilingual Areas of Oslo
Presenting author: Tone Sofie Røsholt, University of Oslo, Norway
Co-authors: Veslemøy Rydland, Ratib Lekhal, Vibeke Grøver

In some districts of Oslo, up to 80% of children in early childhood education and care (ECEC) centers are dual language learners (DLLs), and for ECEC teachers to succeed in supporting dual language development in a highly heterogeneous group of DLLs, it is essential to collaborate with parents. Building on research documenting the importance of establishing a strong collaborative relationship between ECEC teachers and parents to support children's language development, this study aims to explore home–ECEC center collaboration from the perspective of ECEC teachers in multiethnic and multilingual areas of Oslo. Survey data of teacher demographics, attitudes and practices related to parent collaboration to support dual language learning were collected from 266 teachers in 56 ECEC centers and 198 classrooms. The results indicate that most of the teachers had positive attitudes toward promoting parent collaboration and support for dual language development. However, they also expressed some challenges in parent collaboration. Regarding practices to support parent collaboration and dual language learning, the results identify some supportive practice but also a need for more concrete measures. This point to a gap between attitudes and beliefs, on the one side, and the practical operationalization of those attitudes on the other, with a potential for improvement and development. To fill this gap, professional development in promoting parent collaboration to support dual language development, providing concrete practices to coach parents, may be useful.
        Keywords: ECEC, Teacher-parent-collaboration, Language development, DLL

Teacher perspectives on multilingual children's peer interactions in ECEC
Presenting author: Anne-Mieke Thieme, University of Amsterdam, the Netherlands
Co-authors: Sible Andringa, Josje Verhagen, Folkert Kuiken

Peer interactions in ECEC can contribute to young multilingual children's language, social, and cognitive development. This depends, however, on who they interact with, how much, and how elaborate these interactions are (Coplan & Arbeau, 2009; De Haan, 2015; Washington-Nortey et al., 2020). We therefore

examined the nature of multilingual children's peer interactions, and whether these are impacted by children's language background and proficiency. A total of 216 ECEC teachers in the Netherlands completed a detailed survey, and 13 teachers participated in in-depth phone interviews. These teachers had experience with working with young multilingual children. Our results showed that a few teachers (4%) indicated that language proficiency and background do not play any role in children's peer interactions in ECEC. That said, more than 75% indicated that children might be more likely to interact with peers with the same home language background or a similar language proficiency. Moreover, a considerable number of teachers indicated that children with a low daycare language proficiency generally have more difficulty connecting with peers (36%), have simpler peer interactions (59%) and simpler peer play (38%) than children with higher daycare language proficiency. Teachers also reported that children were sometimes excluded by accident because they did not understand the language of their peers (28%), and a few teachers believed that this happened on purpose (7%). These teacher reports need to be confirmed empirically, but suggest that multilingual children might not always experience social inclusion and high-quality peer play, while these are important for their wellbeing and development.

Keywords: Multilingualism, ECEC language proficiency, Peer interactions, Social inclusion, Peer play

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Teacher knowledge of oral language pedagogy predicts child language growth across the pre-school phase

Presenting author: Sandra Mathers, University of Oxford, United Kingdom
Co-authors: Lars-Erik Malmberg, Ariel Lindoff, Julian Gardiner

Theory suggests that effective real-time decision-making in classrooms requires teachers to have flexible access to rich and well-organised knowledge of effective teaching practices. Yet prior research on the role and importance of procedural knowledge has been equivocal. This study used a new video measure of procedural knowledge to examine relationships between preschool teachers' knowledge of oral language pedagogy and child language growth across the preschool phase. The sample comprised 797 teachers participating in a wider RCT, designed to evaluate a professional development intervention. Teachers were shown two short videos of classroom interactions and asked to identify instances of effective practice. Responses were coded to capture three facets: perceiving (the ability to identify salient language-supporting strategies); naming (the use of specific professional vocabulary to describe interactions); and interpreting (the ability to interpret the interactions observed). Both perceiving and interpreting predicting receptive vocabulary growth across the preschool phase. Interpreting also predicted expressive grammar growth. No associations were identified for expressive language.

Keywords: Video, Oral language, Teacher knowledge

Semantic and pragmatic meaning in and of multiliteracies: Towards a conceptualization of young children's multiliteracy meaning-making

Presenting author: Valérie Kemp, Research on Multilingualism, Luxembourg

The term 'meaning-making' is widely used in different fields of research and can be related to personal development, communication, or learning processes. However, only rarely do researchers precisely define the concept, its specificities in the respective research context and its underlying characteristics. For my PhD dissertation, I aim to develop an appropriate conceptualization of young children's multimodal meaning-making processes in the context of their early multiliteracy experiences. In this paper, I build on literature and my observations to outline different levels of meaning and the variety of communicative modes that constitute children's meaning-making processes in relation to multiliteracy activities. I consider the importance of multimodality for children's multiliteracy meaning-making and define meaning-making as a reflexive, complex and continuous social co-construction. In this theoretical paper, I will present a first model of young children's multiliteracy meaning-making and distinguish between the two dimensions of semantic

and pragmatic meanings, which I will illustrate through examples from my data. This theoretical work extends research on learning processes and literacy development and addresses a research gap in clarity and conceptualization. Furthering our understanding of children's multiliteracy meaning-making can help parents and educators to support children in their learning process and guide future studies in this area.

Keywords: Meaning-making, Multiliteracies, Early childhood, Learning

Session A2 – Paper session [13.30–15.00]

Local Educational Policy and Quality of ECEC

Presenting author: Lies van de Kuilen, Dutch Inspectorate of Education/Maastricht University, the Netherlands
Co-authors: Paul Leseman, Inge de Wolf

Within the Dutch system, ECEC centers (for children under 4 years old) have a high level of autonomy. School boards have an even higher level of autonomy for kindergarten education (for children 4-6 years old). In both periods, local governments, in turn, also have ample freedom to shape and implement ECEC policies, thereby risking wide variation in quality. The overarching question was whether this form of governance impacts ECEC quality. In our first study, we examined the relation between municipal policy and the quality of ECEC in centers for children aged 2.5 to 4 years. Our second study focused on the relation between municipal policy and the quality of ECEC in the kindergarten period. In both studies, we used data from the Dutch Inspectorate of Education and data from the Dutch pre-COOL cohort study. The results of multilevel analyses showed differences in ECEC quality between municipalities. The explained variance of ECEC quality in ECEC centers for younger children at the municipal level was significantly larger for (14.2% and 23.4% for observed educational and emotional process quality, respectively) than for kindergartens (max. 4% for a set of quality indicators). Thus, the findings suggest room for influence of local policy in ECEC centers for young children. Exploratory analyses seems to indicate that local network governance can have an impact on the educational quality of ECEC centers for younger children, but not on kindergarten quality for 4 to 6-year-olds.

Keywords: ECEC quality, Governance, Municipalities, Kindergarten, ECEC centers

Key factors related to ECEC staff's job satisfaction and their connection to ECEC quality

Presenting author: Samuel Bader, German Youth Institute, Germany

Staff's well-being in early childhood education and care (ECEC) can help to lower turnover rates and improve staff-child ratios which can ultimately promote the pedagogical quality in ECEC. This can also help to make the ECEC sector resilient and adaptive in times of change. The paper aims at identifying key factors related to ECEC staff's job satisfaction and stress. For this purpose, the TALIS Starting Strong 2018 data from Germany are used. This dataset provides quantitative cross-sectional self-reported data (N=3000 including leaders and staff in centres for children older than three before school entry and centres for children under three). It was investigated which variables are related to ECEC staff's job satisfaction and stress by performing group comparisons, correlation and regression analyses while controlling for relevant covariates. Hypotheses on relevant factors to improve job satisfaction (e.g. commonly used measures) are drawn from literature and tested. Results show that staff who feel supported in their professional development are more satisfied with their job. Job satisfaction is also strongly correlated with their assessment of their centre leader. Professional development also plays an important role in adapting processes and practices in the light of changing tasks in ECEC. Likewise, ECEC leadership is crucial in organising and guaranteeing quality ECEC and developing solutions to new challenges. Hence, supporting pedagogical staff's professional development and supporting ECEC centre leaders and providing them with the (time) resources needed for their diverse tasks are important levers for improving not only workplace conditions in ECEC but overall ECEC quality.

Keywords: ECEC, Well-being, Job-satisfaction, TALIS-Starting-Strong-Survey

How do centre leaders spend their time in ECEC settings – results from the TALIS Starting Strong Survey & implications for the leadership discourse

Presenting author: Daniel Turani, German Youth Institute, Germany

The international leadership discourse stresses the importance of effective leadership for high quality learning environments and the well-being of staff, especially in light of the pandemic and other challenges like a lack of qualified ECEC staff. Within the first TALIS Starting Strong Survey, staff and leaders in ECEC settings were asked about a wide range of themes; centre leaders in particular were invited to answer questions about their pedagogical and administrative leadership. The treatment and embedding of centre leadership in the survey demonstrates the increasing interest and importance of this topic on national ECEC policy agendas. One crucial question is therefore how leadership is shaped across ECEC settings when it comes to time resources used by leaders. The answers of more than 500 leaders in Germany suggest different influencing factors on leadership in ECEC settings. They are less depending on personal characteristics of the leaders but on how leadership is shaped within centres. Centre-size, whether the person is working full-time or if the contract of the centre leader includes exempted time for leadership have clear effects on how they spend their time, for example if they spend their time on (administrative or pedagogical) leadership tasks or rather with children like regular staff. The results imply that there is still a need for professionalisation among centre leader positions in Germany. It can be shown that many centres lack professional leaders who take care (only) of leadership tasks in order to guarantee a high level of organisational quality while many have to neglect these tasks because of a lack of staff. Derivations from the results can also suggest recommendations to support leaders in practice (e.g. with additional administrative staff) and to show different configurations of leadership across countries with international comparable data.

Keywords: International, Large-scale-survey, Leadership, Resources, Leaders

Cuts in Social Security Allowances during Early Childhood and Future Scholastic Achievements: a Natural Experiment

Presenting author: Esther Adi-Japha, Bar-Ilan University, Israel
Co-authors: Dana Shay, Yossi Shavit

The main objective of this study is to assess the effects of drastic cuts in child and social security allowances on cognitive development, as indicated by subsequent scholastic achievement. We exploit a natural experiment, which allows for a comparison of scholastic achievements, in 5th grade, of children whose families benefited from generous social security allowances and of children who were born after a dramatic cut in allowances. In 2003 child allowances and social security benefits in Israel were greatly reduced, especially for poor families with four or more children. We analyze population data for children born in 2002 and 2004. To control for the effect of siblings we focused on those who are fourth and last in their families. The data are drawn from several administrative sources, compiled, at our request, by the Central Bureau of Statistics. The dependent variable is 5th grade standardized test scores in math. Our main hypothesis is that the scholastic achievements of those born in 2004 and are fourth and last in poor families, will be lower than those of their peers born in 2002. Scaled scores of children born in 2002 and 2004, who are forth and last in their families were predicted by cohort (2002/2004), income quantile (5 vs. 1-4), and their (cohort X quantile) interaction. Covariates in the analysis were gender, birth weight, week of birth, family total income from child's birth to the exam year, academic father, academic mother, minority (Arab), (minority x cohort). The hypothesis was corroborated by the analysis.

Keywords: Family income, Welfare, Allowence, Poverty, Equity

Session A3 – Symposium [13.30–15.00]

Promoting 21st century Skills in Preschool and at Home

Chair: Catherine Gunzenhauser, University of Freiburg, Germany
Discussant: Catherine Gunzenhauser, University of Freiburg, Germany

=Children's early learning lays the foundation for children's further academic and personal success. Whereas much research has focused on early learning in academic domains, recent debates increasingly highlighted the importance of fostering so called "21st century skills" (OECD, 2018). 21st century skills include cognitive, but also social-emotional skills and children's wellbeing. Despite the increasing importance of 21st century skills in our modern society, little is known about how these skills are best fostered in early childhood. The symposium addresses this paucity in current research by bringing together three longitudinal studies from three different countries that examine the development of children's social-emotional skills and wellbeing in different learning environments. Paper 1 (United Arabic Emirates) examines the role of family relationships and family stress on 0-8-year-old children's wellbeing during the COVID19 Pandemic. Paper 2 (Portugal) explores how the behavioral and emotional self-regulation contributes to the development of social skills among preschool-aged children. Paper 3 (Germany) investigates the influence of preschool quality on the development of children's social-emotional skills from age 3 to age 8 in elementary school. The specific contribution of our symposium is to extend current knowledge about the role of different learning environments for the development of children's social-emotional skills and wellbeing. The three papers are discussed with regard to theoretical and practical implications by an expert in the field from the Netherlands.

Keywords: 21st century skills, Preschool quality, Family relationships, Social-emotional skills, Wellbeing

The Role of Family Stress Processes and Family Relationships for Children's Psychosocial Functioning and Wellbeing during the COVID-19 Pandemic

Presenting author: Antje von Suchodoletz, New York University Abu Dhabi, United Arab Emirates
Co-authors: Jocelyn Bélanger, Christopher Bryan, Rahma Ali, Sheikha R. Al Neaimi

Children thrive when they are in a safe environment but family stresses due to the COVID-19 pandemic may reduce parents' ability to protect, support and promote children's development (e.g., Masten & Motti-Stefanidi, 2020; Spinelli et al., 2020). The Family Stress Model (Masarik & Conger, 2017) provides a framework to investigate how stress influences family relationships which, in concert, affect children's development in physical, social-emotional, and cognitive domains. This study explores the impact of COVID-19 pandemic-related stressors on parents' stress and spousal and parent-child relationships, and how these, in turn, relate to children's psychosocial functioning and wellbeing during the COVID-19 pandemic. In an explorative approach, we also examined whether the associations are similar or different for two children in the same family unit. 783 parents from the United Arab Emirates completed an online survey in Fall 2020 (t1) and Spring 2021 (t2), measuring how the pandemic impacted their lives. Parents also reported about their child age 0-8 years (Mage=47.54 months, SD=28.95). A subsample of parents (n=96) completed the survey for two children of the same age. Structural equation modeling (SEM) was used. Pandemic-related stressors were negatively associated with parents' stress. Parents' stress was negatively associated with family relationships and with child wellbeing. The pattern was consistent both concurrently at t1 and t2, and over time. We also found several significant indirect and lagged associations. Associations did not differ across two children within the same family. Implications for policy and practice are discussed.

Keywords: Wellbeing, Family relationships, Family stress model, COVID-19 pandemic, Longitudinal

The Contributions of Behavioral and Emotional Self-Regulation to Social Skills in Portuguese Preschoolers

Presenting author: Sofia Guichard, University of Porto, Portugal
Co-authors: Carolina Guedes, Joana Cadima, Tiago Ferreira, Teresa Leal

The importance of self-regulation to children's social skills is widely acknowledged (Blair & Raver, 2015). However, few studies have examined the unique contributions of the behavioral and emotional components of self-regulation to children's social problem-solving skills – a social skill that, albeit understudied, has been shown to be important for children's academic achievement and school adjustment (Denham & Bassett, 2018; Denham et al., 2014). The current study aims to examine the unique and joint contributions of children's behavioral and emotional self-regulation to preschoolers' social-problem solving skills. The participants were 231 Portuguese preschoolers (50% boys; Mage = 59.5 months; SD = 8.5). Data were collected across two assessment waves: 1) at the beginning of the school year, children's behavioral self-regulation was directly assessed with the HTKS (Ponitz et al., 2009), and teachers reported on children's emotional self-regulation with the ERC (Shields & Cicchetti, 1997); 2) at the end of the school year, children's social problem-solving skills were individually assessed with the Challenging Situations Task (Denham et al., 1994). To examine the contributions of the behavioral and emotional self-regulation skills to children's early social skills, we estimated a series of path models, controlling for the children's age, sex, and receptive vocabulary. Results revealed an association between children's behavioral self-regulation and children's prosocial solutions to social problems. This study makes unique contributions to the current literature by clarifying the roles of each component of self-regulation in the development of an important social readiness skill, providing valuable information for early intervention.
Keywords: Preschool, Emotional self-regulation, Behavioral self-regulation, Longitudinal

Long-term Effects of Preschool Quality on Children's Social-Emotional Skills in 2nd Grade

Presenting author: Elisa Oppermann, University of Bamberg, Germany
Co-authors: Simone Lehrl, Lars Burghardt

Attention has grown around the importance of fostering children's social-emotional competencies early to promote a successful academic and personal development (OECD Learning Compass 2030). The present study investigates the longitudinal effects of preschool quality on children's social-emotional development from age 3 until age 8 in second grade. Data stems from 554 German children (48% female, 85% German ethnic background). Measures of preschool quality were two widely established observational rating scales (ECERS-R and ECERS-E). Children's social-emotional skills (emotional self-regulation, aggressiveness and prosocial behavior) were measured by teacher report at both measurement points, reliabilities were good (.72≤ α ≤.90). Multivariate path analyses were conducted to answer our research question. All models were controlled for child and family background characteristic (age, ethnic background, language skills, SES, HLE) and the child-staff ratio in preschool. The nested structure of the data was accounted for by corresponding standard errors adjustments and missing data were estimated with full information maximum likelihood (FIML). Results revealed no main effects of preschool quality on children's social-emotional development. This lack of association was robust for both observational measures of preschool quality (ECERS-R and ECERS-E). Instead, preschool quality effects depended on children's gender: High quality was associated with better social-emotional development for boys but not for girls. Moreover, boys attending high quality preschools caught up with girls in their social-emotional skills by 2nd grade, whereas boys attending low quality preschools did not. Results underline the importance of considering children's individual characteristics in preschool practice and in future research on preschool quality effects.
Keywords: Preschool quality, Social-emotional development, Gender effects, Longitudinal

Session A4 – Symposium [13.30–15.00]

Play arenas and child development - the role of actors, mediation and affordances

Chair: Antonia Zachariou, University of Roehampton, United Kingdom
Discussant: Daniela Jadue Roa, Universidad de O'Higgins, Chile

This symposium aims to explore different play arenas and their affordances for child development. We explore physical-digital play, musical play, sociodramatic play and diverse activity settings within early years education. The first paper of this symposium explores the affordances of new physical-digital play technologies for child development, through a systematic literature review. This paper reveals that, under certain circumstances, physical-digital play affords opportunities for self-monitoring, collaboration, decision making and problem solving. The second paper investigates the affordances of musical play for child development through exploring the extant literature on the topic. This paper identifies the characteristics of musical play that afford for development and focuses on studies that describe musical play's effects on self-regulatory development. The third paper acknowledges the association between sociodramatic play and child development (e.g. literacy, self-regulation) and highlights the lack of guidelines for how educators can promote sociodramatic play. To address this, the authors conduct a literature review analysing empirical research in the classroom on the mediation of educators in sociodramatic play. Finally, the fourth paper looks at the roles and intentions of early year practitioners in supporting child development while looking at a range of play/activity settings: from children's self-chosen and self-led play to more guided forms of play and games designed around specific goals in the early years classroom. We hope that the present symposium will shed light on the role of actors, mediation and affordances in different play arenas, in a way that can inform the extant literature, practice and inspire further research.

Keywords: Play, Sociodramatic play, Musical play, Digital play, Development

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The components affording child development in new physical-digital play technologies

Presenting author: Pablo Torres, University of Cambridge, United Kingdom
Co-authors: Philip Irich, Veronica Cucuiat, Mutlu Cukurova, María Clara Fercovic De la Presa

New physical–digital play technologies connecting bodily and digital child activity are starting to shape the way children play. These technologies include robots, digital agents, mixed or augmented reality devices, and smart-eye based gaming. Little is known, however, about the ways in which these technologies could promote or damage child development. Aim: This study was aimed at understanding if and how these physical–digital play technologies afforded (generated opportunities for) developmentally relevant behaviour in typically developing children. Methods: A systematic review was carried out. A total of 31 papers met the inclusion criteria, of which 17 were of high enough quality to be included for synthesis. A thematic analysis was applied to find patterns across empirical studies. Results: The studies show that physical-digital play technologies could afford children's developmentally relevant behaviour positively. Specifically, self-monitoring was afforded by providing information about own performance. Collaboration was afforded by slowing play interactivity, designing for play interdependency and joint object accessibility. Decision making was afforded by offering delimited choices. Problem solving and physical activity were afforded by requiring children to engage in them to keep playing. Discussion: The study identified four general interlinked socio-technical components affording developmentally relevant behaviour among the physical-digital play technologies reviewed. These included: social expectations framing play situations; technical features of play technologies, such as its digital play mechanics and physical characteristics; the directiveness of technology on children's actions (inviting, guiding or forcing behaviours); and the alignment between play goals promoted, technology's technical features, and developmentally relevant behaviours.

Keywords: Physical-digital play, Technologies, Development, Systematic literature review

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Musical play affording for child development- the self-regulatory perspective

Presenting author: Antonia Zachariou, University of Roehampton, United Kingdom

Mounting evidence suggests that in early childhood, play is a route for supporting self-regulatory development. Research on play and self-regulation traditionally focused on make-believe play, which is argued to promote self-regulatory development due to its specific characteristics. Aim: The aim of this literature review is to explore research that looks into musical play, a universal and innate type of play, for its affordances for self-regulation. Methods: A literature review of the international literature looking at self-regulation and musical play has been performed, focusing on young children up to the age of 8. Results: Studies on musical play suggest that it possesses all characteristics that make make-believe play a fertile context for self-regulation: it is based on rules, reinforces self-regulatory language and emotional regulation, and incorporates intersubjectivity and scaffolding. Various studies have now provided evidence that musical play enhances self-regulation: Winsler et al. (2011) found that children who participated in musical play had higher levels of self-regulation, Zachariou and Whitebread (2015, 2017) observed young children's musical play and found that it was rich in self-regulation evidence. Recent studies have also linked musical play to self-regulation (e.g. Boese, 2017; de Bruin, 2019; Williams, 2018). The latest two studies in the area are interventions: the first suggested positive intervention effects for emotional regulation (Williams and Berthelsen, 2019) and the second (Zachariou, Bonneville-Roussy, Hargreaves, under review) suggested positive effects for metacognition. Discussion: These findings suggest that musical play may be a route towards children's self-regulatory development. These results can inform future research, policy, and practice.

Keywords: Musical play, Development, Self-regulation, Literature review

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Mediation of socio-dramatic play (SDP): How can we successfully influence learning and development?

Presenting author: Valeska Grau, Pontificia Universidad Católica de Chile, Chile
Co-authors: Camila Catalan, Carolina Castro, Belen Herrera, Javiera Muñoz, Fernanda Rufs

There is evidence that SDP is significantly related to expressive and comprehensive language and early literacy, and has a positive influence on the development of autonomy, self-regulation and social skills. To adequately promote SDP in early education classrooms, it is necessary for educators to adequately mediate its development. However, there is a lack of guidelines on the mediating role of the preschool teacher in play has not been sufficiently specified. Aim: This literature review aimed to analyze the international literature of the last ten years in relation to empirical research in the classroom on the mediation of educators in SDP. Methods: Search was conducted in education and psychology databases using the following keywords: "sociodramatic play" + "teacher", (451 articles) "pretend play" + "teacher" (177 articles). Abstracts were read by 2 researchers to evaluate inclusion criteria: (1) Children between 3 and 6 years, (2) Research in education/psychology, (3) Empirical articles, (4) Directly covers the SDP, and (5) Explicitly addresses the mediation of educators in SDP. 16 articles met the criteria. Results and discussion: Results show that most of these studies are qualitative studies with small samples. In addition, the mediation of the sociodramatic play is rarely studied in relation to its effects on the complexity of play itself. Rather, it tends to be studied as a mediator of early academic or socio-emotional skills. More experimental research is needed to establish guidelines on the best ways in which SDP could be fostered to achieve different developmental outcomes.

Keywords: Socio-dramatic play, Learning, Development, Mediation, Systematic literature review

Patterns in playful practices: mapping educator perspectives and roles they adopt across activity settings

Presenting author: Hanne Jensen, The LEGO Foundation. Denmark
Co-authors: Kathrine Aarøe Jørgensen, Merete Cornet Sørensen, Randi Nygård Andersen, Sofie Schmidt, Julie Borup Jensen, Malthe Høy Jensen

Research suggests that young children can learn through play in a range of pedagogical practices: from children's self-chosen and self-led play to more guided forms of play and games designed around specific goals (Zosh et al., 2018). Importantly, facilitating children's engaged learning through play requires tact and intentionality as adults adjust the degree of guidance provided and even join children as co-players – often, practitioners find this a difficult balance to achieve (Pyle, Poliszczuk, & Danniels, 2018). Aims: To explore this issue further, this paper draws on data from a mixed-methods study following Danish early educators taking part in professional development to broaden their play practice repertoire. The aim was to shed light on study participants' intentions to support children's development, their confidence with play-based practices, and patterns in roles adopted across diverse activity settings: children' self-chosen play, fantasy and dramatic play, language activities, science activities, and physical play. Methods: Data analysis is currently in progress and will be completed before the conference. First, patterns in confidence to facilitate in play, and roles across activity settings, will be identified from survey responses made by 173 early educators. These patterns are then held against in-depth findings from semi-structured interviews and observations of play-based practices made with 26 focus participants. Results and discussion: Findings are discussed with reference to the growing international literature on what is required for early educators to become competent facilitators of young children's learning through play.

Keywords: Playful practices, Educator perspectives, Activity settings

Session A5 – Round table refugee children [13.30–15.00]

Welcoming refugee children: how to provide good quality education and care?

Moderator: Ora Oudgenoeg-Paz, Utrecht University, the Netherlands
Contributors by country: England, Katharina Ereky-Stevens, University of Oxford | Germany, Yvonne Anders, University of Bamberg | Greece, Korina Hatzinikolaou, Aristotle University of Thessaloniki | The Netherlands, Frederike Groothoff, Utrecht University | Poland, Olga Wysłowska, University of Warsaw

In the last decade the world has seen a drastic rise in number of refugees and asylum applicants. Within this group, there is a high percentage of children and adolescents. European (and other) countries are faced with the task of providing high quality education for these children. Besides providing refugees with short-term provisions (e.g., housing, language courses), European countries are also concerned with the mid- long-term perspective enabling participation and integration. Education is one of the most important fields that enable such structural integration as in the long-term education has the possibility to facilitate inclusion and provide young refugee children with better academic and economic perspectives whether within their host country or after returning to their home country. Several challenges are involved in providing good quality education to these children. In this round table we will hear from colleagues from several European countries about their experience with refugee education in Europe and outside Europe. We will focus on exchanging experiences, discussing lessons learned and exchanging new ideas with a special focus on addressing multilingualism and processing of traumas.

Session B1 – Paper session [15.30–17.00]

Are Gender Differences in Preschoolers' Preferred Center Reflected in their Engineering Capabilities?
Presenting author: Taly Shechter, Faculty of Education, Bar Ilan University, Israel
Co-authors: Netta Perry, Ornit Spektor-Levy

The engineering field suffers from a lack of female professionals. Girls, should be involved in engineering design programs from an early age. Enriching the learning environment with construction materials, may lead to development of six Engineering Habits of Mind (EHoM): systems thinking, adapting, problem-finding, creative problem-solving, visualizing, and improving. Therefore, we present two studies that explored preschoolers' learning environment preferences (study 1) and investigated whether gender differences in preferences are also reflected in EHoM capabilities (study 2). Study 1 comprised 198 preschoolers (age 5-6 years) and found that while more boys preferred the Construction Center, more girls preferred the Home Themed Role-Play Center. In study 2, we sought to find out whether preschoolers differ in their construction capabilities by gender. 228 preschoolers were divided into intervention and comparison group. The intervention program (i.e., enriching the learning environment with diverse construction materials) lasted six months. Pre-post open-ended problem-solving construction task (building a bridge) was conducted. Boys scored significantly higher then girls on the total EHoM measure and on four EHoM. Girls improved their construction in the post-test, but boys still outperformed girls. Therefore, our results may suggest a domino effect, whereby boys and girls practice different skills when playing in learning environments that have been set up without taking the childrens' perspectives into account (Study 1), which in turn, may reinforce gender differences in EHoM performance (Study 2). Identifying personal factors, such as gender, that might hinder the motivation to engage in engineering is one step towards equity in engineering education.
Keywords: Early childhood, Learning environment, Engineering education, Engineering habits of mind, Gender

Hands-on and minds-on? Finding on the instructional support of preschool teachers to foster children's understanding of scientific inquiry
Presenting author: Ada Cecil Haen, University of Hamburg, Germany
Co-authors: M. Steffensky, A. Bürgermeister, I. Hardy, K. Junge, M. Leuchter, H. Saalbach, L. Venitz

In order to participate in modern society, knowledge of science concepts but also an understanding of scientific inquiry plays an essential role. Young Children develop initial knowledge and skills about scientific inquiry such as identifying patterns long before entering school. It can be assumed that the explicit and stimulating instruction of scientific inquiry fosters this development. Our study aims to explore which inquiry activities are implemented in science learning environments in preschool and if these activities are explicitly combined in terms of an inquiry cycle. Further, we explore the quality of instructional support preschool children receive to understand scientific inquiry. Therefore, we analyzed 49 videos of learning environments in which preschool teachers interact with 4-6 children on the topic of materials (e.g., wood, plastic, or metal). We observed the implementation of selected inquiry activities with a dichotomous scheme and rated the instructional quality. The results show that in most of the recorded learning environments, children had several opportunities to conduct inquiry activities (e.g., observing, predicting). Often these activities are combined in a (simple) inquiry cycle such as predict-test-interpret. At the same time, the instructional quality of the learning environments was rather low. Positive is that almost all preschool teachers implement inquiry activities. However, stimulating interactions about scientific inquiry are rare, which suggests that children's understanding of inquiry - an important component of scientific literacy - is not sufficiently fostered.
Keywords: Preschool children, Scientific inquiry, Early science education

Effective learning environments to support preschool children's understanding of the scientific inquiry cycle

Presenting author: Henning Dominke, University of Hamburg, Faculty of Education, Germany
Co-authors: Daniel Schmerse, Jana Mohr, Mirjam Steffensky

Scientific inquiry is together with science content knowledge a key element of scientific literacy. Scientific inquiry is often described as a cumulative process of asking questions, predicting, testing predictions or observing and evaluating evidence, also referred to as the scientific inquiry cycle (SIC). Before entering school, children already develop a basic understanding of scientific inquiry. Yet, little is known about how to foster young children´s understanding about SIC. Therefore, the study aimed the effect of high-quality instructional support on advancing young learners' knowledge about the SIC and the role of comparisons as an effective instructional strategy. The study employed a quasi-experimental pre-post intervention design comparing two groups with instructional support for a) the inquiry processes and b) the science content with a control group and a baseline group. The control group only received instructional support concerning science content. Children (N = 231) were randomly assigned to one of these groups. Pre- and post-measurements showed that all children except children of the baseline group increased their science content knowledge. Only children in intervention groups increased their understanding about the SIC. Evidence was found that children who compared two dissimilar phenomena thereby outperformed children who compared similar phenomena. Our findings indicate that even for young children in kindergarten, learning environments can be created that effectively promote their understanding about the SIC and further that the mere doing of inquiry activities (as in CG) does not support the understanding of scientific inquiry.

Keywords: Early Science Education, Scientific Inquiry, Intervention study

Session B2 – Paper session [15.30–17.00]

Evaluating the impact of a responsive parenting intervention at-scale in Brazil: a quasi-experimental study nested in a birth cohort

Presenting author: Morgan Healy, Cambridge University & Dove Center, Federal University of Pelotas, Brazil
Co-authors: Eduardo Viegas da Silva, Fernando Barros, Joseph Murray, Fernando Hartwig, Adriane Arteche, Tiago Munhoz, Roberta Soares, Anton Lundborg, Paul Ramchandani

Primeira Infancia Melhor is a large-scale responsive home-visiting program that has reached over 200,000 families in Brazil since 2003. The first evaluation of the effect of PIM on child development was published this year (Viegas da Silva et. al, 2022). This quasi-experimental study would build off of Viegas da Silva's (2022) findings to 1) assess PIM's effect on multiple positive and negative parenting behaviors associated with child development and 2) determine whether intervention effects are moderated by child age at the start of the intervention. Data from the 2015 Pelotas Birth Cohort Study and the Rio Grande state database were linked to identify children within the cohort who had received PIM. Propensity score 1:1 nearest neighbor matching will be used to produce a comparable control group to estimate the effect of PIM on parenting outcomes. First, the impact of enrolment in PIM at any time will be assessed. Following this, the intervention group will be stratified according to whether families enrolled during pregnancy or after birth. A Cochran's Q heterogeneity X2 test be used to assess the modification of the effect of PIM according to the timing of intervention start on each of the parenting outcomes. When PIM was started during pregnancy, children scored significantly higher on overall development (BDI) and experienced a 71% lower prevalence child development delay (Viegas da Silva et. al, 2022). Findings from the current study will elucidate the caregiving mechanisms by which child developmental outcomes were likely achieved. Given the paucity of large-scale implementation research of this nature on the topic and the inclusion of multiple, validated, observational parenting measures, this study would address a large gap in the field of ECD.

Keywords: Parenting behaviors, Quasi-experimental, Home-visiting, Implementation science, Child development

Israeli Secular and Religious Mothers' Talk with their Children About the Israeli-Palestinian Conflict

Presenting author: Marie-Lyne Smadja, The Ono Academic College and Tel Aviv University, Israel
Co-authors: Dorit Aram, Margalit Ziv

Children in Israel grow up in contexts of the Israeli-Palestinian military conflicts. Several studies in the world, and in Israel, investigated the consequences of armed conflicts on young children's development. Only a few studies examined directly the content of conversations between parents and children about violent conflicts. Using a mixed-methods, our research observed two main groups of Israeli Zionist Jewish society – secular and religious mothers (n = 20 in each group), which held different narratives regarding the conflict. When secular Israelis tend to support a political solution to the conflict, religious Israelis tend to emphasize the unique biblical, historic right of Jews to own the land, and fewer support negotiations with Palestinians. We videotaped and compared mothers' conversations of the two groups with their 5-7-year-old children during shared book reading (SBR) of a fiction book, indirectly depicting the Israeli-Palestinian conflict. In addition, we interviewed the mothers regarding their opinions about the nature of their conversations during SBR and their perceptions of children's political socialization. The main findings showed that mothers in the two groups did not differ in the nature of the SBR interactions and the discussion of its content. The qualitative results showed that in both groups, most mothers preferred to talk with their child about the conflict as little as possible but appreciated the opportunity that the book provided them to discuss it in an age-appropriate manner. Our discussion focuses on the potential of SBR to assist parents in explaining the conflict to young children.

Keywords: Israeli-Palestinian conflict, Political socialization, Shared book reading, Jewish mothers, Secular vs. religious

From Childbearing Motivations and Early Parenting to Child Adjustment: A 2-year Longitudinal Dyadic Study

Presenting author: Reut Nachoum, Bar-Ilan University, Israel
Co-authors: Anat Moed, Nir Madjar, Yaniv Kanat-Maymon

Using a motivational framework, the present study seeks to understand whether prenatal childbearing motivations may serve as early markers and shape future parenting styles. We rely on Self-Determination Theory (Ryan & Deci, 2017), which differentiates between two broad types of childbearing motivations: autonomous (volition and self-fulfillment) and controlled (coercion, pressure, or guilt). We suggest that prenatal childbearing motivations can be antecedents of adaptive (i.e., authoritative) and less-adaptive (i.e., authoritarian, or permissive) parenting styles, according to Baumrind's (1971) typologies. Moreover, we argue that early childbearing motivations, through parenting, affect child adjustment. We examined this idea using longitudinal data. Additionally, we took a Family System approach, suggesting that one's own childbearing motivations do not merely influence their parental processes but also their spouse's. Data were collected from 155 Israeli couples (N=310) who reported their childbearing motivations during pregnancy, parental competence 4 months postpartum, and parenting styles and child behavior problems 20 months postpartum. A dyadic path analysis showed that among both parents, associations from prenatal autonomous vs. controlled motivation to authoritarian parenting style were mediated by parents' increased and decreased sense of postpartum competence, respectively. The same pattern of results was found for permissiveness, yet only for mothers. Both authoritarian and permissive parenting were predictive of child externalizing problems. Our study underscores the importance of childbearing motivations as early indicators of future parenting styles and child adjustment. Knowing the possible influences of childbearing motivations may encourage parents to pay closer attention to their inner, autonomous motivations when deciding to expand their family.

Keywords: Childbearing Motivation, Child Adjustment, Parenting Styles, Parental Competence, Longitudinal study

Digital family programme for language stimulation of infants – Why do parents participate?

Presenting author: Sabine Blaurock, Otto-Friedrich-University Bamberg, Germany
Co-authors: Luisa Prokupek

Although studies report on the significance of the home literacy environment (HLE) in the early years for early language acquisition during infancy and toddlerhood (Schmitt et al. 2011), only few studies address the relevance of (digital) family education programmes and the needs of parents of very young children to strengthen their language stimulating skills (Ihmeideh & Al-Maadadi 2020). The present paper therefore investigates patterns emerge among parents who participate in a digital family programme. Data were drawn from the German intervention project "Development and implementation of a digital pedagogical component to increase family stimulation quality" with a preliminary sample size of 171 parents of children with an average age of 12 months (Group A: Course and app, N=79; group B: only app, N=42; Control group N=50). Results reveal that the parents in the course and app group rate their language stimulation of their children comparatively lower, do fewer language-related activities and stimulate their children verbally less often in everyday life. However, education-related resources, social and digital support as well as stress in everyday life do not seem to have any relevance for participation. Results are discussed regarding the potential of digital family education programmes for families with infants.

Keywords: Home literacy environment, Language stimulation, Digital family programme, Infancy, Toddlerhood

Session B3 – Symposium [15.30–17.00]

Improving infants' experiences in daycare: insights from three different countries

Chair: Ora Oudgenoeg-Paz, Utrecht University, the Netherlands
Discussant: Esther Adi-Japha, Bar-Ilan University, Israel

Infants are Increasingly enrolled in Early Childhood Education and Care (ECEC) institutions. Infancy is recognized as a central developmental period that partially shapes further development. ECEC presents great opportunities for optimally supporting this early development. However, to date most studies into ECEC have focused on toddlers rather than infants. The current symposium combines four studies focusing on different aspects of infant ECEC revealing where the opportunities and challenges in this setting lie. The first study investigated infant classroom quality using observations in Portugal showing good positive relationships but suggesting that opportunities for supporting infants' communication development might be missed. The second study focusses on infant classroom quality in the Netherlands, using observations and structured interviews. Findings show that emotional process quality was higher than educational quality and that a higher percentage of infants in the classroom predicted better process quality but less teacher-reported stimulation of language and exploration. The third paper investigated the physical space of infant classrooms and how this is related to children's exploration and play showing that the physical location where children play (e.g., table, free floor-space) predicts whether they engage in social, solitary or parallel play and the complexity of their exploration of objects. The final presentation reports a study into infants' sleep in ECEC in Israel. Specifically, the relations between knowledge about and attitudes towards infant sleep patterns will be related to infant's sleep patterns in ECEC classrooms. Together the four presentations will discuss recent insights into various important aspects for infant development in ECEC.

Keywords: ECEC, Infants, Quality, Sleep, Exploration

Teacher-child relationship quality in infant classrooms: some insights

Presenting author: Joana Cadima, University of Porto, Faculty of Psychology and Educational Sciences, Portugal
Co-authors: Sílvia Barros, Vera Coelho, Donna Bryant, Manuela Pessanha, Carla Peixoto

It is well documented that the experiences of children under age 3 in early childhood education and care (ECEC) settings are crucial for their learning, development and well-being. Current developmental research has shed light on infants' great capacity to communicate intentions and feelings, to actively engage in reciprocal relationships and their vivid interest for the social world (Dalli et al., 2011; Trevarthen & Delafield-Butt, 2017; White et al., 2015). Therefore, providing infants with responsive, sensitive and stimulating interactions that help them build strong relationships with educators is paramount in ECEC. However, research focusing on quality provision for children under age 3 in general, and for infants in particular, is scarce. In this study, we examined infant classroom quality in Portugal through a multi-measure approach. Data on the quality of 90 infant classrooms was collected using the ITERS-R, the CLASS-Infant and the CIS during two full mornings. Results revealed that most classrooms exhibited relatively high levels of positive, close relationships, but there opportunities to expand and support infants' communication were less evident. Implications will be discussed in terms of strengths and constraints and how to better support teachers in fostering responsive, stimulating interactions as part of high-quality daily experiences in ECEC.

Keywords: ECEC, Infants, Quality, CLASS, ITERS-R

Sensitive Caregiver Relations and Opportunities for Learning in Infant Care: Relations with Structural Caregiver and Classroom Characteristics

Presenting author: Pauline Slot, Utrecht University, the Netherlands
Co-authors: Ora Oudgenoeg-Paz, Paul Leseman

Research on quality of early childhood education and care (ECEC) for infants is scarce, while development during infancy is increasingly recognized as playing a large role in determining later outcomes. Several caregiver or classroom characteristics (i.e., structural quality) are considered important preconditions for providing a warm and stimulating environment in which sensitive caregivers adequately respond to infants' physical, emotional, and developmental needs (i.e., process quality). The aim of this study is twofold: 1) to study process quality using observations and teacher-reports about the provision of developmentally stimulating play, exploration, and language activities 2) to investigate relations between structural and process quality. A nationally representative sample of 62 ECEC classrooms providing care to infants (n=26 infant classrooms, n=36 infant-toddler classrooms) from the annual national Dutch ECEC quality monitoring study was used. Quality was measured using observations with the CLASS infant and ITERS-R and structured interviews were conducted with caregivers to collect information on structural quality characteristics, support for play and exploration and provision of language activities. Results show that emotional process quality was in the mid-to high range, whereas educational quality was comparatively lower and showed higher variability. A higher percentage of infants in the classroom and teachers working more hours per week positively predicted process quality. However, having more infants in the classroom was negatively related to teacher-reported stimulation of language and exploration. Other structural features were largely unrelated to quality. The findings demonstrate that opportunities for advancing infants' development can be improved and highlight the importance of working conditions.

Keywords: ECEC, Infants, Quality, Support for exploration, Support for language

The relation between children's use of space in centre-based childcare and their play and exploration.

Presenting author: Ine van Liempd, Utrecht University, Netherlands
Co-authors: Ora Oudgenoeg-Paz, Paul Leseman

Studies into the relation between play and exploration and the physical environment of childcare are scarce. Therefore we studied whether types of play behaviors (i.e., solitary, social and parallel play) are related to children's use of spatial components in the childcare environment and the complexity of object exploration. Participants (N=61) were Dutch children aged 11-48 months attending mixed-age groups. Children were filmed during four episodes of five minutes free play, spread over two days. Films were coded in intervals of 10-seconds for: use of spatial components (free floor-space, activity-centres and tables); play behaviours (Rubin, 2001); and complexity of object exploration. MANOVA (Figure 1) showed that during both parallel and solitary play simple manipulations were more frequent than no object use, and complex manipulations were more frequent than simple ones. Moreover, multilevel analysis (level 1-intervals, level 2-child), with the use of spatial components and the complexity of object exploration as predictors of the types of play while controlling for age, showed that younger children engaged in social play mostly in the activity-centers while engaging in simple object manipulation. Older children more often engaged in social play without using objects. Solitary play was predicted by the use of simple and complex manipulations in all three locations. Parallel play was predicted by the use of complex manipulations in all locations, but happened most at the table. These findings stress the importance of paying extra attention to the way childcare spaces are constructed and how this affects child behaviour and development.
Keywords: ECEC, Infants, Space, Exploration, Play

The association between caregivers' knowledge and beliefs about sleep and daily schedule, and infants' sleep patterns in ECEC settings

Presenting author: Esther Adi-Japha, Bar-Ilan University, Israel
Co-authors: Noa Laor, Sharon Yahav

Infants' sleep poses many challenges to a daycare schedule. The first year of life is characterized by a wide range of individual differences in sleep-patterns (Jenni & Carskadon, 2007). In addition, infant sleep-patterns change every few months during the year (Jones & Spencer, 2020). In many Israeli daycare centers, one caregiver oversees 6 babies, and there may be up to 22(!) babies in the same room. Nevertheless, early childhood curricula, including the Israeli one (Shohet, Givon, & Adi-Japha, 2021), stress individualized infant care. The situation is even more complicated as infant caregivers (with the vast majority having no prior training) hold different views of infant care. Indeed, infant care may be characterized as more 'responsive' (or attuned) vs. a more structured care. Studies in parents have shown that babies' sleep-patterns differ by these parental views, with more stabilized sleep in infants of parents that hold more 'structured' views (Tikotzky & Sadeh, 2009). The aim of the current study is (a) to characterize the amount of individualized infant sleep-patterns in childcare settings (b) to assess daycare workers knowledge about infant sleep-pattern, and (c) to probe daycare workers views of infant-care as more 'responsive' or more 'structured'. Finally, (d) we will test for possible associations between these variables. The study will encompass 100 caregivers working with infants in not-for-profit care and will be based on parental infant-care questionnaires. We hypothesize that non-individualized care and low knowledge would be associated with no training and structured views. Full results will be presented.
Keywords: ECEC, Teachers, Sleep, Infants

Session B4 – Symposium [15.30–17.00]

Engaging with multilingual families in ECEC: pathways to foster collaborative practice and multiliteracy

Chair: Katrien Van Laere, VBJK, Belgium
Discussant: Lisandre Bergeron-Morin, Ghent University, Belgium|Canada

Professionals working in ECEC increasingly meet a variety of home languages in their daily contact with parents and children. Collaboration between professionals and parents is important for all parents, but particularly those of a minority background and low SES. The first encounters with ECEC will shape the parents' collaborative practices with professionals in educational institutions and the children's experiences with the school languages, which influence their literacy development (Sawyer et al., 2017). The role of ECEC is therefore essential. The growing linguistic diversity, however, appears to be challenging for professionals. They often lack knowledge of and experience in efficient means to support multilingualism and multiliteracy, and to collaborate with multilingual parents. Engaging with multilingual families requires practices that are nested in a complex system where personal and contextual factors are interconnected. A deeper understanding of these practices is needed. This symposium aims to connect perspectives from professionals and multilingual parents in relation to collaboration and literacy. The first presentation will explore factors that influence collaboration between families and professionals. The second will highlight the potential of engaging parents into literacy activities, while the third uncovers possibilities of digital media to introduce early multiliteracy, building on families' knowledge. It will lead us to explore and discuss how collaborative practices that promoted multilingualism and multiliteracy can be fostered in ECEC.

Keywords: Childcare, Parents, Collaborative practices, Multilingualism, Literacy

Home language use with children, dialogue with multilingual parents and the role of professional development in ECEC

Presenting author: Brecht Peleman, Ghent University, Belgium
Co-authors: Anouk Van Der Wildt, Michel Vandenbroeck

ECEC plays an important role in fostering the multilingual development of young children and their families (Lengyel, 2012). Professionals working in ECEC are, however, often found to be insecure in supporting multilingual families. To strengthen qualitative interactions between staff, multilingual children and families, continuous professional development (CPD) with a focus on multilingualism and intercultural competences is therefore needed (Romijn et al., 2021). Many studies have focused on the impact of CPD, but few have been conducted in complex multilingual settings. In this presentation, we will share results of a quantitative study with 351 professionals from 85 ECEC-services in the Flemish Community of Belgium, a region characterized by a complex multilingual reality, but also by a monolingual discourse in educational policies. By conducting a multilevel regression analysis, we examined whether CPD on topics related to multilingualism is associated with supportive practices toward multilingual families. The findings show that receiving professional support is related to increased dialogue with multilingual parents on multilingual upbringing, but not to more extensive home language use with multilingual children. Professionals with a multilingual background are more likely to integrate the children's home languages into their practices.

Keywords: Childcare, Continuous Professional Development, Multilingualism, Home language use, Parents

Multilingual literacy activities with parents in crèches in Luxembourg

Presenting author: Claudine Kirsch, University of Luxembourg, Luxembourg; Džoen Bebić-Crestany, University of Luxembourg, Luxembourg

Several countries have implemented multilingual programs in early childhood education, trilingual Luxembourg being one of them. Since 2017 professionals in formal and non-formal (e.g. crèches) institutions have to develop language skills in Luxembourgish/French, familiarize children with French/Luxembourgish and value their home languages, for instance through literacy activities and common activities with parents. Many practitioners, however, are unsure of how to develop literacy in one, let alone multiple languages, and many rarely collaborate with parents. The longitudinal mixed-method research project COMPARE therefore aims to develop and explore multiliteracy and collaborative practices in the non-formal ECEC sector. The paper presents the literacy events in which parents and educators collaboratively engaged three-year-olds in three crèches in 2020-2021. The analysis of the video-recorded observations shows that the range and number of activities as well as the parents' language use depended on the crèches. Parents tended to read and tell stories, frequently in a (prestigious) home language, and sing songs. The parent-led activities in these crèches reflected, to some extent, the pedagogical practices that 452 professionals reported in an online questionnaire completed in 2020 (Kirsch & Aleksić, 2021). We argue that collaboration with parents can propel the use of home languages in crèches and develop multiliteracy practices, but educators need to be aware of language hierarchies and have a good understanding of literacy.

Keywords: Multilingualism, Non-formal education, Parents-school collaboration, Literacy, Luxembourg

Language and literacy learning through digital media in multilingual transnational tamilies – survey results from Luxembourg

Presenting author: Potheini Vaiouli, University of Luxembourg, Luxembourg
Co-authors: Maria Obojska

Recent sociolinguistic research suggests that transnational families offer their members unique safe spaces for language and literacy learning. Digital media play a key role in this process as multilingual families draw on them for communication practices and language learning endeavors (Palviainen, 2020). However, there is little systematic knowledge on how the digital media used by transnational families can facilitate language and literacy learning. This presentation aims to address this knowledge gap by reporting on preliminary results of a research project conducted among transnational families in multilingual Luxembourg. The project follows a mixed-method design that includes a large-scale survey conducted among 200 parents with children between 0-8 years old of transnational families in Luxembourg, followed by qualitative case studies with selected families from the bigger sample. Qualitative data sources include interviews, mediagram, and video recordings. Preliminary results suggest that both parents and their children draw on digital media in their learning endeavors, although the type of practices they engage in, the frequency of the activities, the preferred tools and languages learnt differ between the generations. These findings add to a growing body of research on digital language in multilingual families and highlight the potential of building on families' knowledge and experience to enhance a culture of collaborative family engagement in ECEC.

Keywords: Multilingualism, Family language practices, Literacy, Digital media

Wednesday, 13 July 2022

Session C [11.00–12.30]

Session D [13.30–15.00]

Session E [15.30–17.00]

Session C1 – Paper session [11.00–12.30]

Promoting social cohesion without social exclusion: contradictive expectations for early childhood services

Presenting author: Melissa Dierckx, Ghent University, Belgium
Co-authors: Michel Vandenbroeck, Jochen Devlieghere

Recently, international organisations, NGO's and scholars have coined social work practice and early childhood services as places to foster social inclusion and cohesion as an antidote to the challenges of macro-economic and societal changes, such as neo-liberal influences and migration. The current study critically analyses the conceptualisation of social cohesion in contexts of increasing diversity, integrating the perspectives of academic literature and policymakers. In this presentation, we will present results of a study that analysed the interpretations of social cohesion as a concept by researching social work literature and interviewing policymakers in Flanders (Belgium). The study was led by the following research questions: how is social cohesion interpreted?; What are considered challenges and opportunities for social cohesion?; What role is assigned to early childhood services in contributing to social cohesion? A multi-method design was used, combining a systematic narrative literature review (N=76) with thematic analysis of policy documents (N=44) and semi-structured interviews with policymakers (N=14). Our analysis shows that interpretations of social cohesion can be placed on a continuum, where a focus on shared values is a historical continuity. Reflecting on the possible role of early childhood services leads to contradictive expectations: the aim to achieve an inclusive society by promoting social cohesion paradoxically seems contingent with the introduction of exclusive measures targeting specific groups of families and reinforcing the individual responsibilities of families, leading to social exclusion, rather than social inclusion.
Keywords: Social Cohesion, Early childhood services, Qualitative research, Diversity, Social inclusion

Prevention of risks of social exclusion in ECEC institutions: is there room for optimism?
Presenting author: Dejana Bouillet, University of Zagreb, Faculty of Teacher Education, Croatia
Co-authors: Vlatka Domović

„Models of Response to Educational Needs of Children at risks of social exclusion in ECEC institutions" is a scientific project funded by the Croatian Science Foundation. The project's main aim is to ensure scientific foundations for planning, developing, and evaluating the efficiency of preventive methods, strategies, and programmes devoted to families and children at risk of social exclusion (RSEs). RSEs are defined as a multidimensional construct including economic, social, cultural, health and other aspects of disadvantage and deprivation that can negatively influence the development of a child. This presentation aims to analyse the types and levels of RSE in preschool children that participate in Croatian ECEC institutions and explore the possibilities of ECEC institutions to participate in the prevention of these RSEs. The RSEs of 3500 children aged between 5 and 7 years who were included in ECEC programs in 66 ECEC institutions in Croatia were assessed by the questionnaire "Assessment of Etiological and Phenomenological Aspects of Risks of Social Exclusion of Children - version for ECEC teachers". It was found that 30% of children are faced with different RSE (e.g. developmental disabilities, behavioural and mental health problems, poverty, and unfavourable family circumstances). These children need more support in their development and socialisation with peers. However, the results indicate that Croatian ECEC institutions are not ready to appropriately respond to the need of children at RSE. The reasons for this conclusion will be presented and discussed.
Keywords: ECEC institutions, Children, Risks of social exclusion, Prevention

Safe Educational Partnership: A new model of parents- ECE teachers relationships in a diverse, polarized and changing society

Presenting author: Alona Peleg, Levinsky College of Education, Israel; Iris Levy, Levinsky College of Education, Israel

During recent decades, there have been far-reaching changes in Western countries, including Israel: immigration from different countries, accelerated technological development, new family structures, changes in the employment market and the integration of special needs children into mainstream education. The worldwide Covid19 crisis and the transition to online learning have exacerbated social ang educational gaps, especially among the low socio-economic class and minority communities. This reality influences parent-kindergarten teacher relationships. In a previous study (Peleg at al, 2019), we examined how practicum students of early childhood education (ECE) interpreted communication with parents and what challenges faced them. Data analysis showed that they interacted with parents from various social and cultural groups, yet demonstrated low cultural sensitivity and competence. A theoretical review of current models of parent-teacher relationships revealed that these models tend to ignore cultural diversity. Accordingly, we wish to propose a new integrative applicable model: Safe Educational Partnership (SEP), combining both psychological and sociological points of view. This model is based on cultivating Psychological Safety, including Cultural and Social Identity Safety, as a necessary condition for building close and caring relations. The model calls for a reformulation of the relational contract between parents and teachers, demanding a shift from the approach of the child at the center to the approach of the child and his/her family at the center. At the same time, it gives educators relevant and applicable tools to lead substantial changes in parent-teacher interactions in a diverse, polarized and changing society.

Keywords: Early childhood education, parents-ECE teachers relationships, Psychological safety, Identity safety, Cultural competence

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The role of parent initiatives in ethnically segregated ECEC in Germany

Presenting author: Nina Hogrebe, University of Applied Science, Germany; Stefan Schulder, University of Applied Science, Germany; Anna Marina Schmidt, University of Münster, Germany

ECEC is expected to serve social inclusion and equality (European Commission 2011), but private provision is believed to foster inequality (e.g., Lloyd & Penn, 2012). For Germany, small-scale local or qualitative regional studies indicate that parent initiatives, which are mostly private non-profit organizations, are particularly homogeneous (exclusive) in their composition (Baader & Riechers, 2021; Hogrebe, 2016). The aim of our study is to analyze the impact of being a parent initiative on the settings' ethnic composition–measured by the proportion of children with a language of origin other than German–based on nationally representative data. The study is part of the project "Segregation and Preschool Providers" funded by the German Federal Ministry of Education and Research (funding code: 01NV1809B) and draws on data from the Socio-Economic Panel (Schober et al. 2017). Following an empirical-analytical paradigm, we use multivariate regression analyses to investigate the extent to which being a parent initiative impacts the proportion of children with a non-German language of origin in the daycare-centers (N=572). Even after controlling for relevant co-variates on meso- and macro-level (e.g., setting characteristics, population structures of the neighborhood, etc.), our results show that being a parent initiative still accounts for a 8% difference in the settings' ethnic composition (β=-8.1; p<0.00). As preschool composition impacts children's competence development (e.g., Niklas & Tayler 2018), our findings point to the need to discuss subsidiarity and provider autonomy as important structural elements in the German ECEC system and providers' responsibility within this system to create equal opportunities and divers learning contexts for all children.

Keywords: Daycare, Segregation, Inclusion, Private Provision, Parent Initiatives

Session C2 – Paper session [11.00–12.30]

Communication and teaching methods in WhatsApp videos sent by kindergarten teachers to children during the lockdown periods in COVID-19 pandemic

Presenting author: Sigal Achituv, Oranim Academic College of Education, Israel
Co-authors: Shay Regev

The research presented in this proposal deals with aspects of communication and teaching methods as expressed in WhatsApp videos that were sent by kindergarten teachers (KT) to children during the lockdowns of the COVID-19 pandemic. The research aim was to find out what uses KT made of videos for keeping in touch and as teaching methods. The study opens a window into the field of distance learning of kindergarten children and allows a glimpse into the KT's relationship with children and their families during the lockdown periods. The research took place according to the interpretive phenomenology method during which seven WhatsApp videos from the three lockdowns were examined and analyzed. Findings show that during the first lockdown, KT were mainly concerned with keeping in touch with the children, while in the second and third, they offered activities to the children, and at the same time continued to deal with content from the kindergarten routine. A main finding points to KT' focus on the concept of time and development of children's time perception. No specific reference was found to the parents, although they served as mediators between the KT and the children. Conclusions demonstrate that learning characteristics of young children do not change in a situation of social distancing. The research assists early childhood educators, counselors, and policymakers in understanding the complexities of distance learning in kindergartens and may contribute to formulating the requirements of KT in future distance learning situations.

      Keywords: Kindergarten teachers, WhatsApp videos, Distance learning, COVID-19 pandemic, Lockdown periods

Teacher's Role and Young Children's Activities in Tinkering and Manufacturing Spaces (Makerspaces) in the Kindergarten

Presenting author: Adela Peleg, University of Haifa, Israel
Co-authors: Sharona Levy

In recent years, formal and informal education institutions, from early childhood to high school, have become increasingly interested in integrating Maker education in designated tinkering and manufacturing spaces called Makerspaces into their curricula. These spaces support participants in activities that involve repairing, innovating, building, and designing digital or physical objects, alone or with others, using various materials, tools, and new technologies. Kindergarten education leaders are trying to integrate these makerspaces in kindergartens in Israel and other countries worldwide. However, this attempt raises questions regarding how to implement makerspaces in kindergarten. Moreover, it creates confusion about the uniqueness of makerspaces and the difference between them and existing creation, studio, or other tinkering spaces in kindergartens. This study has set its primary goal to understand how makerspaces can be integrated into kindergartens under the best possible conditions. Through a comparative case study, the research takes the approach of first understanding how three pioneering teachers have established such spaces and what characterizes them. Furthermore, we explore children's activities in these spaces. Our findings show how the three spaces are different yet share a common educational and pedagogical approach. We found that each makerspace provides a creative personal expression for each child, respects any idea, and imparts values of teamwork and mutual help. Also, the activity in the space yields learning of relevant concepts, understanding of the various tools' functions, and improving problem-solving skills. As for the educational staff, their central role is to mediate children's cognitive, motor, social, and emotional performance when needed. Theoretical implications, and implications of the study for education, are displayed.

      Keywords: Makerspaces, Learning environments, Early childhood education, Teacher's role

Universiteit Utrecht

What contributes to the implementation of effective digital activities in early years settings?
Presenting author: Sarah Schröter, Otto-Friedrich-Universität Bamberg, Germany
Co-authors: Elisa Oppermann, Franziska Cohen, Yvonne Anders

Information-communication technology (ICT) is already part of our children's lives and will become even more relevant in the future (Irion, 2020). Limited research has been done on influencing factors that affect the implementation process of ICT structured activities in early years settings in Germany, in particular on when and how ICT is implemented during the day. This study investigated the frequency of structured ICT-related activities. Experience sampling has been used to gather insides on when and how the implementation process took place during the day. Further, the relationship between technical equipment, ICT-related in-service training, as well as an ICT – related concept in early years settings was analysed. Findings indicated: first, that ICT is mainly used in the morning and afternoon. While structured ICT-related activities are often carried out in the morning, after breakfast and before lunchtime, ICT in free play activities is mainly used in the afternoon. Further, the analysis revealed that ICT-related in-service training of preschool teachers and an ICT-related vision and concept in early years setting seem to be positively associated with the frequency of ICT-related activities. Therefore, it has been recommended to strengthen ICT-related in-service training for teachers and to implement ICT-related concepts in early years settings in Germany to enhance children's ICT-related skills.
Keywords: ICT-related activities, Implementation of ICT, Technical equipment, In-service training, Digital activities

The acceptance and usage of ICT by ECEC professionals in Germany
Presenting author: Franziska Cohen, University of Education, Germany
Co-authors: Yvonne Anders

Digital media plays an essential role in children's everyday life. On the one hand, daycare centres are called to deal with these changed living conditions of children and, on the other hand, implement Information and Communication Technology (ICT) in their pedagogical practice. The condition during the COVID-19 epidemic forced the development and implementation of ICT in pedagogical practice. In order to integrate ICT as tools in high-quality educational situations for children, professional competencies and a sufficient ICT infrastructure in the institution are required. The study follows the theoretical assumptions of the Technology Acceptance Modell (TAM, Davis et al. 1989). Accordingly, we will examine the impact of beliefs regarding ICT, the support and infrastructure as predictors for behavioural intention to implement ICT and the actual use of ICT in educational situations in daycare centres. Data consist of 266 early childhood educators in Germany who reported on their beliefs and behavioural intention to use ICT in the pedagogical practice via an online questionnaire. Results show a significant relationship between the beliefs and the intention to implement ICT in practice but no significant relationship to the technical infrastructure and support. The findings will be discussed regarding the prerequisites for ICT usage in ECEC daily pedagogical practice and implications for professional development.
Keywords: ICT, ECEC, Professional competences, TAM, Digital media

Session C3 – Paper session [11.00–12.30]

Changes in global and math-specific teacher-child interactions through teacher trainings
Presenting author: Franka Baron, German Youth Institute, Germany
Co-authors: Anja Linberg, Simone Lehrl, Dorothea Dornheim

Studies show that educational processes are considered a key dimension for child development and learning. Especially global and domain-specific (including math-specific) teacher-child interactions have a positive effect on child outcomes. The quality and amount of supportive interactions can be improved though teacher trainings. However, only few studies investigate how global and math-specific interactions occur between children aged two to three years and their teachers in German childcare centers and how those interactions could be improved through trainings. To answer these questions, over 200 children and their teachers were examined in this study. Teacher-child interactions were rated in 45 child-care centers with CLASS Toddler (La Paro et al., 2012) and math-specific interactions were assessed by observing their quantity. Teachers were assigned randomly to one of those groups: Global intervention group (n=16), math-specific intervention group (n=14), control group (n=15). Teachers in both intervention groups attended a two-day training with an eight-week implementation phase. Teachers in the control group had a short meeting without any practical exercise. Observations were conducted before and after the intervention or the meeting. Regarding global interaction quality, results show a significant increase in all groups (emotional and behavioral support: $F(1,42)=7.22$, $p=.01$, $\eta p2 =.15$; engaged support for learning: $F(1,42)=6.23$, $p=.02$, $\eta p2=.13$). Concerning math-specificity, interactions fostering the understanding of spaces/shapes ($F(1,43)=3.28$, $p=.08$, $\eta p2 =.07$) and sizes/measurements ($F(1,43)=3.34$, $p=.08$, $\eta p2 =.07$) improved in the math-specific intervention group. Findings and limitations are discussed in terms of implications and further research.

      Keywords: Quality, Global/Math-specific interactions, Teacher training

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Math Talk in Toddlers' Classrooms

Presenting author: Johanna Klemm, Otto-Friedrich-Universität Bamberg, Germany
Co-authors: Simone Lehrl, Anja Linberg, Dorothea Dornheim

Teacher's math talk is a language-based method to foster mathematical abilities in young children. Understanding its role in toddlers' classrooms could help to foster mathematical competencies. The aim of the present study is to explore teachers' math talk and its relation to children's mathematical competencies in toddlers' classrooms. Language input during videotaped teacher-child interactions (15 to 20 minutes) from 38 teachers working with children under the age of three years was examined using a coding scheme with 17 categories focusing on the content of an utterance and 9 categories focusing on the word level. These categories are based on previous studies on math talk and incorporate a wide understanding of mathematics. Data was also collected from 183 children in the teachers' classrooms aged 23 to 36 months to determine their mathematical abilities through individual testing. Cross-sectional results show, that, on average, teachers talked 36 times about mathematical content and used 199 math-related words, ranging across 17 content and 9 word categories in a span of 20 minutes. Amount and diversity of math talk are positively related to teachers' years of professional experience. Moreover, the amount of math talk is also positively related to the number of children in the classroom. "Ordering objects" is the math talk category most closely connected to mathematical competencies in children. The results suggest that math talk is an important aspect of toddlers' classrooms. Practical implications are discussed.

      Keywords: Early math skills, ECEC

Teachers' Physiological and Self-Reported Stress, Teaching Practices and Students' Math Skills in Grade 1

Presenting author: Anna-Liisa Jõgi, Tallinn University, Estonia; University of Jyväskylä, Finland
Co-authors: Eija Pakarinen, Marja-Kristiina Lerkkanen

Teachers' self-reported stress is related to the quality of teacher-student interactions and students' learning outcomes. It is unclear if teachers' physiological stress is related to teaching practices and whether these mediate the link between teachers' physiological and self-reported stress and students' learning outcomes. We aimed to study the effect of teachers' physiological and self-reported stress on their teaching practices

and thereby on students' learning gains in math during the Grade 1. A total of 53 classroom teachers and 866 students participated in the study. Salivary cortisol was used as an indicator of teachers' physiological stress, in addition to self-reported teaching-related stress. Teaching practices were observed with the ECCOM instrument. Students' math skills were controlled for gender and previous skills. Two-level structural equation modelling was used for data analysis. We found that self-reported stress was related to teachers' using fewer child-centered teaching practices compared to teacher-directed ones, but physiological stress was not associated with teaching practices. Teaching practices, in turn, had a small effect on classroom-level differences in students' math skills in Grade 1. There was neither a direct nor indirect effect from teachers' stress on students' math skills. In conclusion, these are teachers' personal experiences about their ability to cope with stress and thereby shape students' learning experiences through their teaching practices. Therefore, we suggest directing teachers' wellbeing interventions to their coping strategies and to the school environment that supports coping with stress.

Keywords: Teachers' stress, Physiological and self-reported stress, Teaching practices, Primary school, Math skills

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Are visual-spatial abilities in pre-school predictive of later specific learning disorder in mathematics?

Presenting author: Nadine Poltz, Department of Inclusive Education, University of Potsdam, Germany
Co-authors: Antje Ehlert

This 5-year longitudinal study identified 26 primary school children as suffering from Specific learning disorder in Mathematics (SLDM) based on DSM-5 criteria (mean scores in arithmetic < 1.5 SD of at least two measurement points) without having problems in reading or writing (SLDM only), 26 children with comorbid reading or writing problems (SLDM comorbid) and 1246 children without SLDM. We aimed to analyse the numerical abilities, visual spatial perception, and visuospatial working memory of the three groups in pre-school at age 5. Furthermore, we examined if visual spatial abilities in pre-school could help to identify children with SLDM at school. MANOVA revealed significant differences between the three groups on all pre-school measures, showing the highest scores for No SLDM and the lowest scores for SLDM comorbid. However, subsequent discriminant analyses revealed only small amounts of explained variances for the two visual spatial abilities. Numerical abilities proved to be the most important predictor. To differentiate SLDM comorbid from the two other groups visuospatial WM was more important than visual spatial perception. Furthermore, 57% of the children with SLDM (only and comorbid) could be identified by preschool numerical achievement scores below the average (T < 40). Under consideration of visual spatial abilities (mean score of visual spatial perception and visuospatial working memory), the precision of prediction of SLDM could slightly be increased (65%). The findings are in line with previous research. They underline the importance of further investigation of visual spatial abilities to examine the development of SLDM in more detail.

Keywords: Visual spatial perception, Visuospatial working memory, Numerical skills, Dyscalculia, Pre-school

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Session C4 – Symposium [11.00–12.30]

Supporting children's language development through social robots

Chair: Rianne van den Berghe, Windesheim University of Applied Sciences, the Netherlands
Discussant: Paul Vogt, Hanze University of Applied Sciences, the Netherlands

Language plays an important role in children's development and school success. Technological advancements allow a new way of fostering children's language development: the use of social robots for language education. There are various reasons why social robots could be a valuable tool for language education. Compared to other technologies such as tablets, robots have more of a social presence: they are

embodied and often have a humanoid appearance, allowing them to have more natural interactions through, for example, language and gestures. The field of child-robot interaction, however, is still young and researchers are investigating how children interact with robots and how to make robot-assisted language education as effective as possible. The aim of this symposium is to bring together the latest research on robot-assisted language learning and discuss their implications for education. Each of the contributions presents a different perspective on robot-assisted language learning, highlighting robot factors (the use of language-learning strategies and iconic gestures in robot-assisted language learning), child factors (the role of children's temperament) and their effect on children's learning (a.o., speech production). Together, these studies show the state-of-the-art in how robots may support children's language development, which questions remain to study in future research, and how research on child-robot interaction also provides insights into how children learn languages. The discussion will focus on the important lessons learned and how to use these to move forward.

Keywords: Language development, Educational robots, Child-robot interaction, Technology, Second-language learning

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Comparing preschoolers' attentional patterns during long-term word learning with a human or humanoid robot in light of their shyness

Presenting author: Franziska Viertel, Paderborn University, Germany
Co-authors: Nils Tolksdorf, Katharina Rohlfing

In the area of robot-assisted language learning, investigations have focused primarily on testing children's ability to retrieve new words in a final test, rather on analysing the interaction itself in which the words are conveyed or on accounting for individual differences. Following literature documenting the relevance of children's attentional patterns during the process of learning new words (Booth et al., 2008) and the assumption that an analysis of children's behaviour can be informative for the design of potential learning arrangements (Tolksdorf et al. 2021), we explored children's attention within parallel learning situations across two different conditions: an interaction with either a social robot or a human. Based on findings that shyness influences attentional processes during word learning (Hilton et al., 2019), we additionally analysed the role of a shy temperament on children's behaviour when interacting with different social partners. In our study, we measured the attentional patterns of 23 preschoolers aged 4–5 years over three consecutive sessions. Results revealed that children learning with a human rather than a robot fixated the referents of the novel words significantly longer, but looked at their partner significantly shorter than children in the robot setting. Interestingly, a shy temperament was positively associated with a longer gaze duration at the referents. Shy children looked at their interaction partner for a shorter time, which was more pronounced in the interaction with the human than with the robot. We discuss that learning arrangements with social robots might be particularly promising for children with a shy temperament.

Keywords: Word learning, Shyness, Attention, Child-robot interaction, Educational robots

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The use of social robots in a translanguaging pedagogy

Presenting author: Rianne van den Berghe, Windesheim University of Applied Sciences, the Netherlands

One of the advantages of social robots for language education is their ability to speak any language. This is particularly interesting in light of the recent focus on the use of home languages in schools to support children's learning and language development. The use of home languages to bootstrap children's learning of the school language and their learning in general, has been dubbed translanguaging. While more and more teachers and schools are interested in adopting a translanguaging pedagogy, they struggle to implement this, as they do not always speak the home languages of children. Perhaps, social robots can help. I conducted a literature review with the aim to find out which language-learning approaches have already been used in

robot-assisted education, and where opportunities lie to use robots as translanguaging agents. The main findings are that more and more studies are being conducted on robot-assisted second-language education, while adopting different approaches: from first-language programs in which only target words are presented in the second language to full immersion programs in the second language. Few studies present a clear rationale behind their language-learning approach, or have investigated how robots as translanguaging agents can support children's language development and wellbeing in school. Several recommendations are presented on how to develop robots as language supports in schools and investigate their effect on children's language development and wellbeing.

Keywords: Translanguaging, Educational robots, Child-robot interaction, Second-language learning, Review

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Using a storytelling robot to support children's second language skills
Presenting author: Mirjam de Haas, Tilburg University, the Netherlands
Co-authors: Loesinè Dzjamaljan, Sandra Straková, Paul Vogt, Rian Aarts

Recently, researchers have started to use a humanoid robot to support the second language skills (L2) of children with an immigrant background (e.g., Leeuwestein et al., 2021; Schulz et al., 2020). The findings are promising, children seem to learn vocabulary from a robot. However, more research is needed, especially on interventions aiming at different language components and containing multiple sessions. The current study, therefore, explored whether a social robot can improve multilingual children's L2 speech production through storytelling activities over four sessions. Twenty-four children with an immigrant background interacted with a robot telling stories. Children were divided into two conditions: they either participated in four sessions with the robot (experimental group; n = 14), or only in the final session (control group; n = 10). The overall complexity of the stories increased during the four sessions, and we hypothesized that children in the experimental group would gain more complex language skills. After each storytelling activity, we asked children questions about the story and measured vocabulary (Type Token Ratio) and syntax (Mean Length of Utterance of their output. Our findings show no differences between the conditions, but we found that children used fewer unique words after the fourth story than after the first story. These findings may be explained by a novelty effect. At the start, children were highly engaged with the robot and therefore used more unique words to describe the stories. However, as they got used to the robot, their engagement may have dropped, and they only used short answers. Another explanation may be found in the increasing complexity; as stories got more complex, children may have lost the ability to talk about them using a variety of words. We are currently making in-depth analyses of children's output and engagement during the sessions to support these claims.

Keywords: Educational robotics, Child-robot interaction, Second language learning, Immigrant children, Storytelling

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Design and evaluation of robot-performed gestures to support L2 education
Presenting author: Jan de Wit, Tilburg University, the Netherlands
Co-authors: Bram Willemsen, Mirjam de Haas, Rianne van den Berghe, Paul Leseman, Ora Oudgenoeg-Paz, Josje Verhagen, Paul Vogt, Emiel Krahmer

In the Horizon2020 L2TOR project (http://l2tor.eu), we investigated whether social robots could address the need for innovative technological support in second language (L2) education and, if so, how we can design interactions in such a way that social robots can be effective as tutors. Compared to other technologies, robots have the advantage of being physically present in the educational context, and an important way to leverage this physical presence is using hand gestures. Hand gestures have been shown to facilitate learning from other people, and therefore we set out to study whether this applies to robots as well. We conducted a large-scale study at primary schools in the Netherlands, in which 194 children of approximately five years old

participated. They were divided among one of four conditions: (1) control; (2) tablet only; (3) tablet + robot with deictic gestures; (4) tablet + robot with deictic and iconic gestures. Children not in the control condition attempted to learn 34 different English words with the robot, across seven sessions. Our results show that children learn from the tutoring interaction, however no benefits were observed of the robot's presence, nor its use of iconic gestures. We further explored potential factors related to the design of the experiment and the gestures and found that only the older children in the study were able to benefit from the robot's gestures, particularly those for measurement words (e.g., big). Based on these findings, we propose several improvements to the process of designing hand gestures for robots.

Keywords: Social robotics, Second language learning, Nonverbal communication, Hand gestures, Human-robot interaction

Session C5 – Round table COVID [11.00–12.30]

ECEC in times of pandemic: how essential and resilient is ECEC in the face of great challenges?
Moderator: Paul Leseman, Utrecht University, the Netherlands
Contributors by country: Belgium, Katrien van Laere, VBJK & University of Ghent | England, Eva Lloyd, University of East London | Scotland, Ingela Naumann, University of Edinburgh | Germany, Elisa Oppermann, Otto-Friedrich-University Bamberg | Israel, Esther Adi-Japha, Bar-Ilan University | Italy, Giulia Pastori, University of Milan Bicocca | The Netherlands, Pauline Slot, Utrecht University | Norway, Thomas Moser, University of Stavanger | Turkey, Pinar Kolancali, University of Oxford

In this roundtable discussion we will address how the ECEC systems in different countries responded to the challenges of the pandemic and the successive lockdowns. How did the ECEC system respond to the pandemic, also in comparison to the primary school system? Which (additional) services could be provided for children and families most in need during the lockdowns? Were children specifically supported in emotionally coping with the pandemic and its consequences? How was contact and communication with families maintained? Did the quality of care and education suffer? Were there any positive effects as well? The roundtable will start with a number of short invited, research-based pitches on the experiences in different countries. The discussion will focus on the lessons learned and address the question how ECEC can be made more robust as an essential community service in the face of great challenges for society.

Session D1 – Paper session [13.30–15.00]

Supporting Children's Participation in Early Childhood Education and Care Settings through Professional Development: A Feasibility Study
Presenting author: Nadine Correia, Iscte - Instituto Universitário de Lisboa, Portugal
Co-authors: Cecília Aguiar, Sílvia Barros, Efthymia Penderi, Olga Wysłowska, Helena Taelman, Konstantinos Petrogianis and the PARTICIPA Consortium

The extent to which children's participation – their right to be listened to and have their views considered (United Nations, 1989) – is implemented in early childhood education (ECEC), has been considered a dimension of ECEC quality (Correia et al., in press). In this study, we examined the feasibility of a professional development intervention, informed by the Lundy model (Lundy, 2007), aiming to support ECEC professionals in promoting children's participation. The intervention toolkit included a self-assessment tool and a 25-hours massive open online course (MOOC) targeting ECEC teachers, assistants, and coordinators. Thirty-six ECEC centres in Belgium, Greece, Poland, and Portugal participated. Centres were randomly assigned to an intervention or a waiting list control group. Pre-test and post-test measures included professionals' participation-related beliefs, attitudes, and knowledge; perceived participation practices (Correia et al., 2020);

and classroom observations using the Observed Children's Choice scale (Correia et al., 2020), as well as the CLASS pre-K (Pianta et al., 2008) and/or the Leuven Well-being and Involvement Scales (Laevers & Declercq, 2018). Participants in the intervention group also reported on the practicality, acceptability, and appropriateness of the toolkit. We examine the efficacy of the intervention in producing change in professionals' attitudes, beliefs, and knowledge; and in observed classroom quality, and classroom-level child well-being, involvement, and participation. Intervention dosage and participants' perceptions regarding the acceptability and practicality of the tools are considered. Implications regarding the feasibility of this professional development approach, including the extent to which a more comprehensive and extensive evaluation is warranted, are discussed.

Keywords: Child participation, Early childhood education, Professional development, Feasibility

Relationships between staff's participation in professional development and the use of pedagogical practices in German ECEC centres - Data from the self-report TALIS Starting Strong Survey

Presenting author: Carolyn Seybel, German Youth Institute, Germany

The knowledge and practical skills that ECEC staff acquire during their initial training are usually not sufficient in order to be able to support children's development and learning in an adequate way. This can be the case, for example, when ECEC staff are working with children with diverse backgrounds or if unexpected situations occur (e.g. COVID-19 crisis). Professional development (PD) provides ECEC staff with the opportunity to learn how to deal with challenging situations and children's diverse needs in a professional way. Thereby, ECEC staff can benefit from informal, domain-general PD activities (e.g. discussions about children's development with colleagues) or they can participate in formal, domain-specific PD activities (e.g. participation in a formal course on a specific topic). Empirical studies already show that PD is positively associated with both observed and self-reported process quality. These associations exist both with informal, domain-general PD and with formal, domain-specific PD. Against this backdrop, this paper used the German dataset of the self-report TALIS Staring Strong Survey 2018 in order to investigate to what extent staff's participation in different types of PD is related to the use of pedagogical practices that positively influence children's learning. The main statistically significant finding from the group comparisons (t-tests) was that ECEC staff who regularly engaged in informal, domain-general PD reported a higher use of pedagogical practices in the four developmental domains (language, literacy, numeracy and play) than ECEC staff who did not regularly participate in informal PD. Possible interpretations and implications for pedagogical practice will be discussed.

Keywords: ECEC, Professional Development, Informal PD, Formal PD, Pedagogical practices

Chilean ECE teachers' discourses on participation in professional associations: New opportunities for professionalism in times of social and political crisis

Presenting author: Cynthia Adlerstein, Pontificia Universidad Católica de Chile, Chile
Co-authors: Marcela Pardo

In the last five years, Chilean ECE teachers' professional associations (ECEPAs) have multiplied and come to the fore in the public sphere, renewing professionalism understandings and the neoliberal educational debate. This paper describes the discourses that mobilize ECE teachers' participation in ECEPAs and the new opportunities for building professionalism in Chile. Moreover, it discusses ECE teachers' involvement in ECEPAs as a core trait of professionalism and the shift towards a more empowered ECE field. The methodology developed an 18-month qualitative inquiry (2020-2021) that followed the Constructivist-Grounded Theory approach to build a holistic case study method. Data collection drew on a purposive sampling of 15 ECEPA-cases and a theoretical sample of 60 ECE teachers from diverse ECE professional contexts. After 15 in-depth interviews with ECEPA leaders and seven discussion groups with ECE teachers, the data analysis followed the Constant Comparison Method through a four-step axial and selective coding process. Findings show that ECE teachers relate participation in ECEPAs and professionalism around four

discourses: 1) Doing transformational politics; 2) Supporting pedagogical learning and empowerment; 3) Fighting for decent working conditions and against labor harassment and 4) Advocating for historical struggles and renewed directions. Conclusions discuss how these discourses Intertwine new opportunities for connecting ECE teachers' in an emergent ecosystem of Chilean ECEPAs and a renewed ECE multi-unionism. It provides new understandings of the theoretical crux of teacher unionism and ECE professionalism. The practical significance points to developing an ECEPA-professional culture and a political framework that involves ECEPAs in policymaking.

Keywords: Early childhood teachers, Discourses, Professional associations, Professionalism, Chile

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A self-assessment tool for early childhood education and care professionals to support children's right to participate - the process of development of the tool

Presenting author: Olga Wysłowska, University of Warsaw, Faculty of Education, Poland
Co-authors: Helena Taelman, Anneleen Boderé, Urszula Markowska-Manista, Konstantinos Petrogiannis, Efthymia Penderi, Christoforos Karachristos, Elias Stavropoulos, Cecília Aguiar, Nadine Correia, Sílvia Barros, Manuela Pessanha, Sara Araújo, Vera Coelho, Cristina Mesquita, Cristiana Guimarães

In this presentation we describe the process of development of the self-assessment tool for early childhood education and care (ECEC) professionals to support children's right to participate. Participation was defined as children's right to be heard, to express their perspectives in matters affecting them, and to have them considered and given due weight (United Nations Convention on the Rights of the Child, in 1989). The conceptual framework of the tool was driven from the Lundy model focusing on four interrelated elements of the provision: space, voice, audience, and influence (Lundy, 2007). 187 ECEC professionals from Greece, Belgium, Portugal and Poland were actively involved in development of the tool by providing feedback on its subsequent versions through focus groups, individual interviews, and online questionnaires. Professionals referred to the content (especially national context relevance), clarity and general value of the tool. Reception of the tool across countries at all stages of work was mostly positive. Nevertheless, professionals' suggestions led to some important adjustments. For example, the structure of the tool which was initially assumed to include two versions (one for coordinators supporting them in delivering high-quality ECEC through participatory practices at the center level and one for teacher and teachers assistants supporting them in delivering high-quality ECEC through participatory practices at the classroom level) finally includes three versions, one for each type of professional. Moreover, a fifth element was added - Contextual support referring to a participative community, where all professionals support children's participation and optimize their practices in close collaboration.

Keywords: Self-assessment, Child participation, Early childhood education and care, Professionalization

Session D2 – Symposium [13.30–15.00]

Parenting young children during the Coronavirus pandemic in multiple countries

Chair: Rotem Schapira, Levinsky College of Education; Tel Aviv University, Israel
Discussant: Deborah Bergman Deitcher, Tel Aviv University, Israel

Parents play a major role in their children's development, especially during the critical early years. This contribution is heightened during times of stress or crisis, where the ways in which parents cope can impact children's outcomes. Throughout the ongoing Covid-19 pandemic, governments around the world enforced lockdowns, where residents were required to remain at home, jobs and educational frameworks were closed, and people were restricted from social contact. In this symposium, we explore parenting in Israel, Italy, and Spain during the first lockdown period. The first paper explores the contribution of three dimensions of parenting to children's empathy and emotion regulation during the first lockdown period in Israel. The second

paper examines the interplay between parents' functioning and children's social-emotional adjustment amongst families in Italy. The third paper assesses parenting behaviors in Spain, using the "Parenting Pentagon Model", which comprises five beneficial parenting behaviors. The final paper also uses the "Parenting Pentagon Model," but focuses on changes in parents' behaviors in Israel across time, from before the Coronavirus outbreak, during the first lockdown, and one year later. Together, this symposium provides a broad view of how parents in multiple countries coped with the Coronavirus pandemic, particularly during the lockdown period. Further, it demonstrates the importance of parents' behaviors in terms of their impact on children's social-emotional functioning. The discussion will focus on similarities and differences amongst the countries, and on potential future research and interventions relating to the ongoing Coronavirus crisis.

Keywords: Early childhood, Parental distress/coping, Beneficial parenting behaviors, Social-emotional outcomes, Crisis

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Parents' emotional behavior and their children's empathy and emotion regulation during the COVID-19 lockdown

Presenting author: Rotem Schapira, Levinsky College of Education, Tel Aviv University, Israel

Parents play a central role in creating the emotional climate in a family, including supporting children's identifying emotions, sharing emotions, and providing regulation. This role is particularly important during times of change and complexity throughout life. This study explored the contribution of the home atmosphere, parents' emotion regulation, and parents' emotion expressiveness to children's empathy and emotion regulation during the first COVID-19 lockdown in Israel, from March to May 2020. Participants included 343 parents (49 fathers and 294 mothers) and their children (151 male and 192 female) ranging in age from 3- to 8-years-old (M = 62.01, SD = 18.44). Parents completed a questionnaire regarding the home atmosphere (relaxed or stressed), their emotion regulation strategies (cognitive reappraisal or suppression), and positive and negative emotion expressiveness. Additionally, they reported their children's empathy and emotion regulation. Primary results revealed that parents' positive expressiveness mediated the relation between home atmosphere parents' cognitive reappraisal, and suppression to children's empathy and children's adaptive emotion regulation. Additionally, parents' negative expressiveness mediated the relation between parents' cognitive reappraisal and children's negativity/lability. Parents' positive and negative emotion expressiveness thus seems to play a significant role in promoting children's emotional development. The study's findings highlight the importance of parents' emotional behavior and its connection to their children's emotional development during the challenging period of the worldwide COVID-19 crisis.

Keywords: Home atmosphere, Parents' emotion regulation, Parents' emotion expressiveness, Children's empathy, Children's emotion regulation

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The Mediation Effect of Children' Emotional Responses on the Relationship between Maternal Distress/Coping and Children's Adaptive Behaviors during the COVID19 Lockdown

Presenting author: Annalisa Levante, Department of History, Society, and Human Studies, Università del Salento, Lecce, Italy; Lab of Applied Psychology, Department of History, Society, and Human Studies, University of Salento, Lecce, Italy
Co-authors: Serena Petrocchi, Federica Bianco, Ilaria Castelli, Flavia Lecciso

The present study drew attention to the psychological impact of the COVID-19 lockdown on Italian families. Previous studies (Favieri et al., 2020) analyzed the impact of social distancing measures on individuals' mental health. However, the lockdown had a possible impact on parenting and, specifically, on the interplay between the parents' functioning and the child's adjustment. Following the principles of the tripartite model on children's emotion regulation and adjustment (Morris et al. 2007), the present study tested a model of relationships. Via structural equations, it was expected that maternal distress levels and coping skills would be associated with children's behaviors, via the mediation effect of the children's emotional responses. The

sample was composed of 144 mothers (Mage = 39.3, SD = 5.6) with children aged 5–10 years (Mage = 7.54, SD = 1.6, 82 boys) who filled out the online survey in April-May 2020. Mothers with low distress were likely to attribute more positive emotions and fewer negative emotions to their children. On the other hand, maternal high coping skills were connected to the attribution of more positive emotions to the child. Positive emotions were associated with socially competent behaviors (i.e., playing activities, school-related activities, and time spent alone). Negative emotions were associated with the ability to talk about those negative emotions. The evidence suggests that more attention needs to be paid to caregiver-children relationships, and as a follow-up of this point, a nationwide plan for parents to receive support should be implemented.

Keywords: Maternal distress, Maternal coping, Children's adjustment, Children's emotional responses, Tripartite model

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A positive parenting model in Spanish families during the Coronavirus lockdown period
Presenting author: Margarita Martín Martín, Universidad Complutense de Madrid, Spain
Co-authors: Susana Valverde Montesino, Irene Solbes Canales

At the beginning of the current Coronavirus pandemic, one of the many measures implemented was the total confinement of Spanish families at home for several months. Therefore, outdoor activities, including school attendance, and contact with other people outside the nuclear family group were prohibited. The purpose of this research was to analyse whether the parenting practices carried out during this time were appropriate from the point of view of a positive parenting model. For this, during the lockdown, 336 parents with children aged 2 to 8 years answered a questionnaire based on the Parenting Pentagon Model. A descriptive analysis of results was conducted, including some sociodemographic variables that may also influence the parenting practices of the families. According to families' responses, parenting practices carried out corresponded to those indicated in the positive parenting model. The most salient aspect was unconditional love, followed by encouraging independence and adherence to rules. Only slight differences in parenting practices were found according to parents' and children's gender, age, and educational level. Thus, parenting practices were generally positive during confinement. We strongly recommend further research into the parenting practices of families to develop prevention and intervention strategies in situations of crisis and stress, such as the pandemic, which can minimise the impact on children's mental health.

Keywords: Parenting practices, Positive parenting, Mental health, Lockdown, Coronavirus

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Parenting young children during the COVID-19 pandemic: Changes from before the outbreak, during the first lockdown, and a year later
Presenting author: Galia Meoded Karabanov, Tel Aviv University, Israel
Co-authors: Dorit Aram

This study compares parents' daily behaviors with young children, before the COVID-19 outbreak (T1; N=192), during the first lockdown in March-May, 2020 (T2; N=190), and one year later in April-May, 2021 (T3; N=180(. Participants were 562 Israeli mothers, mostly educated from middle SES, aged M=36.65 years (SD=3.94). Parents completed a 34-item online questionnaire rating the frequency of daily parenting behaviors with their young children using the Parenting Pentagon Model (Aram et al., 2021). The model comprises five beneficial parenting behaviors: Partnership between spouses; parent's Leadership; Love expressions; supporting child's Independence; and adherence to Rules. Parents also completed a socio-demographic questionnaire. Results demonstrated changes in parental behaviors between the three periods. Post-hoc tests, controlling for parent's age and education, child's age, and family size, revealed that before the COVID-19 pandemic, parents reported significantly more beneficial parenting behaviors in line with the Parenting Pentagon Model than during the first lockdown. A year later, there were significant increases in Partnership between spouses, support for Independence and Adherence to rules behaviors. Yet, their reports regarding Love expressions and parental Leadership behaviors remain significantly lower than before the pandemic

outbreak. The first lockdown created a situation where on top of parents' concerns from the pandemic and the health of their relatives, they had to juggle at-home childcare, household chores, and work. Acknowledging parents as the central agents in their children's lives during times of crisis can empower them. Parental guidance is especially important during this ongoing global crisis.

Keywords: Parenting Pentagon Model, Beneficial parenting behaviors, Crisis, Longitudinal, Early childhood

Session D3 – Symposium [13.30–15.00]

The perspectives of both Turkish immigrant parents and children on their identity and integration in Europe

Chair: Ryanne Francot, Utrecht University, the Netherlands
Discussant: Martine Broekhuizen, Utrecht University, the Netherlands

The heterogeneity that is present in current European societies is the result of the complex interplay between ethnicity, religion, language, traditions, and cultural values and practices of immigrant and ethnic minority groups. This has sparked intense public and political debate in Europe on immigration and integration around the central issue how the participation of immigrants and minorities in society can be increased. It is believed, often also by the (pre)schools that immigrant children attend, that assimilation into the country of residence is the best option for equal opportunities and inclusion, in particular for the children. However, this may put pressure on immigrant families, when parents (and children as well) wish to maintain their own linguistic and cultural practices and values to at least some extent and to pass this cultural heritage on to their children. In this symposium we will focus on both Turkish immigrant parents and their children, and the interplay of their acculturation preferences and identities, characteristics of the local preschool and primary school context, and the national context of integration and education policies. People with a Turkish background are one of the largest immigrant communities in Europe who have settled in different European countries. All three papers use quantitative or qualitative data from the collaborative European research project ISOTIS (www.isotis.org). The findings and similarities of the studies, and their implications for ECEC policy and practice, will be discussed by Dr. Martine Broekhuizen, co-leader of the ISOTIS work package on the interview studies with immigrant parents and children.

Keywords: Immigrant families, Inclusion, Multilingualism, Identity, Acculturation

Assimilation or striking a bicultural balance? Acculturation profiles as related to informal educational support for children among Turkish immigrant families in four countries

Presenting author: Ayça Alayli, International Step by Step Association (ISSA), the Netherlands
Co-authors: Ryanne Francot, Martine Broekhuizen, Paul Leseman

Immigrant parents often face challenges in raising their children, as they have to navigate between the demands of the majority society in the country of residence and their own cultural and linguistic wishes in providing a nurturing home environment. Against the backdrop of growing assimilationist pressures in Europe, the question rises if assimilation is the most promising option, or whether other acculturation strategies are also, or even more, enabling immigrant parents to support their children's development, learning and educational achievement. The current study examines how acculturation strategies of Turkish immigrant families are related to key processes at home, referred to as the home learning environment (HLE), and parents' educational aspirations. The study involved 943 Turkish immigrant parents living in four European countries with different national integration policies: England, Germany, the Netherlands, and Norway. Using Latent Profile Analysis, we first identified four acculturation profiles in the total sample as well as in the samples per country: assimilation, integration, separation and marginalization. These profiles are in line with Berry's Integration-Acculturation model (Berry, 1997). Second, using Structural Equation Modeling we found that for parents with a younger child, acculturation profiles were only minorly related to the home

environment. For parents with an older child, more relations were found. We found no indications that the assimilation profile enables immigrant parents more in supporting their children than the integration or separation profiles. Parents' education level and proficiency in the national language were positive predictors of an education-supportive home environment, regardless of parents' acculturation choices.

Keywords: Immigrant parents, Acculturation, Home learning environment, Educational aspirations

The Interplay of Religious Inclusion in (Pre-)schools and Ethnoreligious Identities: Perceptions and Experiences of Turkish Immigrant Parents in Germany

Presenting author: Hande Erdem-Möbius, Free University of Berlin; University of Bamberg, Germany;
Co-authors: Özen Odağ, Yvonne Anders

Immigrants' religiosity in Europe has been addressed in politics and media with the discourses of securitization and integration underlying the failure of multiculturalism. Notably, the misrepresentation of the religion of minority groups in educational institutions strengthen boundaries between the native and immigrant communities (Alba, 2005). An inclusive learning environment in the early years can facilitate societal integration (Biesinger et al., 2011; Hüpping & Büker, 2014). Accordingly, preschool and primary school education are important as children start recognizing sociocultural, religious diversity and their own identities. Research on immigrant parents' perspectives on religious inclusion in (pre-)schools is scarce. Accordingly, the present study concentrates on the views of Turkish immigrant parents in Germany. It examines how their ethnoreligious identities interplay with their perceptions and experiences linked to religious inclusion in their children's (pre-)schools. Ethnoreligious identities are examined by focusing on inter-group boundary formations (Phinney, 1990) from a socio-spatial perspective applying space theory (Gulson & Symes, 2007). The data were collected by conducting 22 qualitative in-depth interviews and analyzed following qualitative content analysis (Mayring, 2014). The findings indicate that parents appreciate when schools apply interreligious pedagogical practices and acknowledge minorities' religious backgrounds. However, non-religious parents complained about the presumption of teachers about their children being attached to Muslim identity, which causes marginalization and identity dilemmas among immigrant families. In addition, the ethnoreligious prejudices of teachers and experiencing discrimination in a school context reproduce inter-group boundaries and, in turn, affect parents' ethnoreligious identities. The research findings can inform policymakers and support inclusive pedagogical practices.

Keywords: Religion, Inclusion, ECEC

Fostering the ethnic identity of pre-school children in the context of ECEC

Presenting author: Pinar Kolancali, University of Oxford, United Kingdom

Language is considered at the core of a person's cultural identity, and for immigrant children, the choice of which language(s) to use can pose a dilemma at already an early age. This qualitative child study is carried out as part of the ISOTIS project (www.isotis.org) to investigate the impact of perceived linguistic and cultural identities of minority children on their well-being and language acquisition. A group of 5- to 6-year-old children (N = 27) was interviewed about their attitudes towards the Turkish and English languages and experiences with their languages at home and school environments using a semi-structured interview method. The interviews with children demonstrated that children's language attitudes informed their language preferences, and vice versa. Many children connected their identity-related experiences or feelings to particular individuals or locations. Some children expressed more profound feelings towards their linguistic or cultural identities. These feelings are, in most cases, triggered by discussions at home or encounters at school. Negative feelings towards the home culture or language (Turkish) are related to attempts to refrain from using the language and children's experiences of discomfort in using the home language in some situations.

Keywords: Linguistic and cultural diversity, Inclusion, Child perspective

Session D4 – Symposium [13.30–15.00]

Short and long-term effects of ECEC on disadvantaged children's language, cognitive and social-emotional development: recent evidence from Germany and The Netherlands
Chair: Thomas van Huizen, Utrecht School of Economics, the Netherlands
Discussant: Thomas Moser, University of Stavanger, Norway

Evidence is accumulating world-wide that programs for early education and care for children from low-SES and immigrant backgrounds can have beneficial impact on children's language, academic and social-emotional skills in long term, and can help to reduce persistent education gaps. Yet, most evidence is based on research from only a few countries, in particular the USA and the UK, and frequently stems from targeted programs provided to small selected samples under controlled experimental conditions. Evidence based on universal programs provided on scale is less conclusive. Several issues stand out: to what extent are short and long-term outcomes moderated by the dosage of ECEC (age of onset, intensity of use) and the quality of the programs attended, what constitutes good quality in view of outcomes in both the cognitive and social-emotional domain, and how do cognitive and social-emotional outcomes interact in producing long-term benefits? The present symposium brings together recent research from Germany and The Netherlands on universal and targeted programs provided on scale in the context of complex ECEC systems with mixtures of local and national policies. Three presentations address the main findings on ECEC effectiveness, discuss pertinent methodological issues of the research designs applied and possible study design and analytical solutions to strengthen the conclusion validity of ECEC evaluation research.
         Keywords: ECEC effectiveness, Large-scale programs, Quality, Exposure

Long-term effects up to age 12 of attending ECEC on disadvantaged children's cognitive and social-emotional skills: the pre-COOL cohort study
Presenting author: Paul Leseman, Utrecht University, the Netherlands
Co-authors: Thomas van Huizen, Annemiek Veen, Ineke van der Veen, Bodine Romijn, Pauline Slot

Aim and context: Preschool education for 2.5 to 6-year-old children from low-SES and immigrant families was introduced on scale in The Netherlands from 2000 and is, after successive policy reforms, increasingly integrated in a split universal ECEC system. To evaluate the policy, the pre-COOL cohort study was launched with a first assessment of children's cognitive and social-emotional skills at age 2.3 and a final assessment of children's school achievement, self-regulation and social-emotional behavior at age 12. Method and data: Child assessment data concern language, executive function, self-control, externalizing behavior and social competence in the preschool period (N=3000) and school achievement and classroom behavior from grade 1 to 6 (N=2200). Quality measures involve classroom observations and teacher reports. Data were analyzed using latent growth modelling, cross-lagged panel analysis and center fixed effects regression to control for unmeasured selection bias. Results: Latent growth modelling revealed medium-sized catching-up effects in language, executive function, self-control and behavior in preschool until grade 1 relative to a not-at-risk reference group. Higher educational (process) quality was associated with greater gains but not consistently, possibly due to selection mechanisms. Using a ECEC center fixed effects methodology, more consistent effects of educational quality were found. New analyses are currently undertaken to assess long term effects. Discussion and conclusion: ECEC of high educational quality contributes to narrowing early developmental and educational gaps benefitting school achievement and behavior in long term. Different methodological approaches should be considered to control for selection-into-effects mechanisms when programs are embedded in complex split ECEC systems.
         Keywords: ECEC effectiveness, Cognitive, Social-emotional, Disadvantaged children, Cohort

Effects of the German federal programme "Sprach-Kitas" (language day-care centres) on educational quality in preschools

Presenting author: Hans-Guenther Rossbach, Otto-Friedrich-Universität Bamberg, Germany
Co-authors: Katharina Kluczniok, Yvonne Anders

Aim and context: The federal program "Sprach-Kitas" aims at preschools that have a high proportion of children who would benefit particularly from language education. The main themes of the programme – which runs from 2016 until 2022 in about 7.700 preschools – are language support in daily routines, inclusion, cooperation with parents and digital media. The program provides funding for the centers for an additional professional expert, supporting the themes within the settings. In addition, specialized consultants consult networks of 10 to 15 centres. However, there exists no compulsory curriculum; each preschool can choose how to implement aspects of the themes. Method and data: About 1.000 centers participate in the multi-method evaluation. The evaluation makes use of the natural variance in implementation strategies and quality, and aims at uncovering how the program is interpreted and which strategies have a positive effect on quality. In a subsample of 107 preschools, quality was measured with standardized observational tools focusing on domain-specific quality, especially language and cognitive stimulation and interactions. Results: Multivariate regression analyses show moderate effects of different implementation strategies (quality of professional support of the specialist consultants, frequency of team meetings) on quality, controlling for structural aspects. Discussion and conclusion: The findings illustrate the potentials, but also the challenges, associated with the program. Thus, sustainable further development of educational quality seems to be a process that must be pursued in the long term in order to improve educational processes in the preschools. The discussion will also focus on the limitations of the measures.
        Keywords: ECEC effectiveness, Language program, Implementation, Quality

Establishing the effects of extra hours pre-kindergarten education and higher qualified staff on disadvantaged toddlers cognitive and social-emotional development: the EVENING study

Presenting author: Thomas van Huizen, Utrecht School of Economics, the Netherlands
Co-authors: Sanne Appels, Ryanne Francot, Ora Oudgenoeg, Paul Leseman

Aim and context: Recently, in The Netherlands, the number of hours of free pre-kindergarten education for toddlers (2.5 to 4 years) from low SES and immigrant families at risk of educational delays was extended from 10 to 16 hours per week. In addition, a new pedagogical staff position at the BA-level was introduced in preschool centers for program development, coaching and quality assurance. To evaluate the policy measures, the multiple cohort study EVENING was initiated. Method and data: EVENING uses exogeneous variation between municipalities in the implementation of the measures and in the additional supply of free hours provided to non-target children as Instrumental Variables to enable causal conclusions. Children are assessed upon the start in preschool at age 2.5 and upon the transition to kindergarten at age 4. Assessments include language, executive function, self-control and social-emotional behavior. Quality measures of the child centers are based on classroom observations and teacher reports. Due to the pandemic data collection was severely delayed and is currently still ongoing. Results: First results of part of the intended center sample show that the extra pre-kindergarten hours are mostly used for additional educational activities, which are overall of higher educational process quality. We plan to present preliminary findings regarding the effects on child development. Discussion and conclusion: In addition to the first findings regarding the implementation of the policy measures and their impact on quality (and possibly on children), the discussion will specifically focus on the methodological approach of the EVENING study.
        Keywords: ECEC effectiveness, Exposure, Quality, Instrumental variables

Session D5 – Poster session [13.30–15.00]

Measuring and predicting teachers' externally assessed role behaviour during free play

Presenting author: Cornelia Rüdisüli, Zurich University of Teacher Education, Switzerland
Co-authors: Corina Wustmann Seiler, Patricia Lannen

Teachers in early childhood education and care (ECEC) assume different roles during children's play (e.g., co-player or onlooker). Recent research shows, that personal and structural characteristics, such as work experience or group composition, are significant predictors of self-reported role behaviour during free play (Ivrendi, 2020; Wustmann Seiler et al., 2022). However, to date, little is known about predictors of externally assessed role behaviour during free play due to small sample sizes in previous studies. Furthermore, it is unclear whether teachers' role behaviour depends on the children's play processes (exploratory play, construction play, dramatic play, games with rules) in a given situation. This paper examines the relationships between teachers' externally assessed role behaviour during free play and personal, structural, and situational characteristics. The study is based on 79 live observations in 33 childcare centers and 46 kindergartens in Switzerland. For this purpose, an external observation instrument was developed to assess teachers' situational role behaviour during children's free play. In addition, personal (e.g., professional experience), structural (e.g., group composition) and situational (children's play processes) characteristics were recorded. Interrater reliability for teacher's roles during free play is satisfactory (ICC = 0.67-0.93). Analyses of 288 observation cycles are carried out based on a path analysis considering the clustered data structure. Implications for the field of playful pedagogy in ECEC are discussed.

Keywords: Play support, Predictors, External observation, Children's play

Home literacy environment and social competence among single and dual language learning preschoolers and kindergarten children - The mediating role of language

Presenting author: Ankica Jurkic, Institute of Educational Science, Dept. of Research in School and Learning, University of Bern, Switzerland
Co-authors: Simone Halliday, Tina Hascher

In early childhood children's language skills and social competence develop primarily in the home environment. Home literacy activities, such as shared book reading and storytelling are shown to be crucial in supporting children's language abilities. Additionally, shared book reading and storytelling provides opportunities to talk about the social interactions and behavior of a character. Accordingly, there is evidence that the home literacy environment (HLE) is also indirectly related to social competence through language. Based on a sample of 141 single language learning (SLL) and 74 dual language learning (DLL) children aged 35-66 months (M=48.44, SD=8.30), this study aimed to examine cross-sectionally the association between HLE and social competence, mediated by language abilities. Children's receptive vocabulary and sentence comprehension in the societal language were assessed using established instruments. Social competence was rated by early education professionals from child-care, playgroups and kindergartens. HLE was operationalized by shared book reading, storytelling and number of children's (picture) books in the household. Results of mediation analysis revealed a significant association between HLE and social competence, mediated by receptive vocabulary among SLL, and mediated by sentence comprehension among DLL, even when controlling for age, gender, nonverbal reasoning and maternal education. Thus, rich HLE may support the acquisition of language and social development. It may be an effective target for interventions, particularly for promoting DLL's societal language abilities. Moreover, fostering children's language may be a great strategy for facilitating children's social competence.

Keywords: Home literacy environment (HLE), Language, Social competence, Single language learners, Dual language learners

Classroom Talk for Playful Learning: Theoretical Foundations

Presenting author: Carolyn Mazzei, University of Cambridge, United Kingdom
Co-authors: Pablo Torres, Sara Baker

Playful learning in early schooling is important because it allows for children to experience agency in their learning [1]. When children experience agency, they have the opportunity to develop cognitive skills that are predictive of later academic success [2]. However, early primary teachers report that playful learning is difficult to do in the day-to-day of classrooms [3]. In an effort to make playful learning more accessible for teachers, we ask, can classroom talk be considered an approach for playful learning? The present work reflects a theoretical consideration of classroom talk as supportive of playful learning. We present theoretical pathways, including increased student agency, that ground an empirical exploration of how classroom talk may be associated with children's cognitive outcomes, such as executive functions. This work has implications for teacher practices and student outcomes, setting a foundation to empirically explore how talk as an approach for play can increase playful learning and support children's cognitive skill development.

Keywords: Agency, play, Cognitive development, Classroom talk

Cross-cultural similarities and differences in mothers' metacognition about book-sharing with young children

Presenting author: Aleksandrina Dimova, New York University Abu Dhabi, United Arab Emirates
Co-authors: Lixin Ren, Antje von Suchodoletz, Yeqing Li, Zhen Zhang, Florrie Ng

The present study explored cultural similarities and differences in mothers' metacognition during a book-sharing activity, and their relations with their socialization goals. Mothers of toddlers between 17-34 months from three cultural communities (USA, n = 37, India, n = 29, and China, n = 65) participated in the study. They were video-recorded during a book-sharing activity with their child after which mothers completed a retrospective think-aloud interview that asked them to freely reflect on the book-sharing activity, using the video-recording as prompt. In addition, a semi-structured interview was used to explore mothers' socialization goals and beliefs about child development. Finally, mothers also completed a demographic background questionnaire. Qualitative content analysis was utilized to examine (a) mothers' metacognition about the book-sharing activity and (b) the goals that mothers have for the book-sharing with their child. Results showed cross-cultural similarities and differences in relation to mothers' metacognition, such that mothers from the USA, representing a Western culture, consistently differed from mothers from India and China in two out of the three metacognition categories we explored, and socialization goals also consistently differed across the three cultures. Additionally, mothers' metacognitive thoughts were differentially associated with child-centered and adult-centered book-sharing goals in the USA and India, but not in China. These findings suggest cultural differences in the ways mothers think about book-sharing and in the goals they have about book activities. We discuss potential implications of those findings for designing effective interventions related to reading and social inclusion.

Keywords: Reading, Mothers' metacognition, Cross-cultural differences

Who is responsible for children's early education? The importance of parental beliefs for home stimulation quality during Corona-related daycare closures

Presenting author: Sonja Lorusso, Universität Konstanz, Germany
Co-authors: Axinja Hachfeld

Attending daycare expands children's learning environment, increasing cognitive skills at school entry (Ansari & Gottfried, 2018), which remain stable throughout school careers (Skopek & Passaretta et al., 2020). During the pandemic-related kindergarten closures, the learning environment was reduced to the home environment. How stimulating parents designed this home learning environment could depend on whether

they see the responsibility for their children's education more with themselves or with the institutions. Whether perceived educational responsibility plays a role in the home's level of stimulation is as yet unclear. We hypothesize that parents who see more responsibility with the kindergarten have tried to compensate for the closure, so that educational activities have increased more in those families than in others. We surveyed parents (Mage= 38.0 years, SD = 4.57) of 507 children from a small town in southern Germany (Mage = 5.34 years, SD = 0.84) using an online questionnaire. Of the parents, 75.5% had a Abitur (high school diploma). An exploratory factor analysis of educational responsibility revealed a stable two-factor solution interpreted as "parental educational responsibility" (PER) and "institutional educational responsibility" (IER). According to our hypothesis, a robust, univariate analysis of covariance showed a predictive effect for IER, controlling for educational background, weekly working hours, and home office: Parents who viewed educational responsibility as more with kindergarten were significantly more likely to report an increase in education-related activities, while high PER predicted no change. We conclude that the attribution of educational responsibility plays an important role in which educational activities parents implement.

Keywords: Pandemic, Educational responsibility, Kindergarten, Home learning environment

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Second Language Learners in Shared Picture Book Reading Interactions; Multimodal Initiations and Reactions

Presenting author: Aleksandra Kappenberg, University of Oldenburg, Department of Special Needs Education and Rehabilitation, Germany
Co-authors: Ulla Licandro

To communicate successfully with their peers and practitioners, children need skills in initiating interactions as well as responding to initiations (Akhtar & Tomasello, 2000; Bruner, 1983). Second language learners (SLLs) often use multimodal communication strategies, i.e., combinations of verbal language and gestures, in early childhood education and care (ECEC) interactions (Björk-Willén, 2007; Syrjämäki et al., 2019). However, there is a lack of research evidence on the use of multimodal communication in initiations compared to responses of SLLs, especially with regard to the linguistic complexity. In this cross-sectional study, dyadic shared picture book readings of SLLs (diverse heritage languages – L1, German as a second language – L2) and ECEC professionals were investigated with a focus on children's multimodal initiations and responses. Thirty SLLs (15 girls; Mage = 4,6 years) were selected for this study. 15-minute video recordings were transcribed according to CHAT conventions (MacWhinney, 2021) and categorized into initiations and responses using Mehlem and Erdogan's (2020) coding system. Multimodal and nonverbal strategies were annotated. Results showed that SLLs responded to the initiations of the practitioners predominantly verbally and initiated interactions mostly multimodally. In addition, the children produced more linguistically complex utterances in their initiations than in their responses. These findings demonstrate the varied communicative skills young SLLs use in their interactions and underline the importance of gestural cues in everyday ECEC interactions. The results are also important with regard to effective language support for children with heterogeneous language acquisition pathways.

Keywords: Initiations, Responses, Multimodal Communication, Shared Picture Book Reading, Second Language Learners

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Parent practices and social support in early childhood within the Bedouin community: Changes during the COVID-19 pandemic

Presenting author: Faten Darawsheh Moed, University of Haifa, Israel; Amanda Czik, University of Haifa, Israel; Najla Zaroubi Jaraisy, University of Haifa, Israel
Co-authors: Miri Scharf, Saleem Abo Rabeaa, Yair Ziv

This longitudinal study examined the effects of the COVID-19 pandemic on preschool children mothers' parenting practices and perceived social support in an already defined at-risk population – the Bedouin

society in Israel - the poorest community in Israel and a politically and culturally distinct minority subset of the Arab minority population in Israel. The lockdowns and isolations presented difficulties in the social-emotional development of children, added distress for parents globally and have been especially challenging in ethnic and cultural minority communities where social and economic stressors are constantly present such as the Bedouin community, The current study included 213 Bedouin mothers of preschool children (104 girls: Mage = 5.66) and measured their perceived social support and parenting practices before and during the pandemic. Results were mixed. As expected, the stressors associated with the pandemic had major adverse effects on parenting practices during the pandemic. On the other hand, contrary to our hypotheses, Mothers reported higher levels of satisfaction from their social support network during the pandemic compared to before it. The results of this study have implications for identifying parent risk and resilience factors influencing the social-emotional development of young children in multiple risks communities.

Keywords: Bedouin Society, COVID 19, Parent Practices, Social Support

Session E1 – Paper session [15.30–17.00]

Interaction quality in nurseries and the children's development
Presenting author: Anna Libiseller, University of Graz, Austria
Co-authors: Claudia Geißler, Catherine Walter-Laager, Mailina Barta

Nowadays out-of-home childcare is commonplace for children because of either the societal changes such as higher employment of women (Wegscheider-Pichler et al., 2020), the optimization of the compatibility of family and work (Viernickel et al., 2016), or the improved equal opportunities for children (Walter-Laager & Meier Magistretti, 2016). After a quantitative expansion of Early Childhood Education and Care (ECEC) centers, an increasing focus lies on the quality in the nurseries. Numerous studies (like BIKE-Studie – Wirts et al., 2012-2015; EPPE – Sylva et al., 2004; NICHD - Early Child Care Research Network, since 1991; NUBBEK – Tietze et al., 2013; SPEEL – Moles et al., 2002; WiKi – Datler et al., 2007-2012) show that the interaction quality is the decisive element for optimal children´s development and have found an effect between these two. The aim of the EIK-Study is to show the effects of the interaction quality on newly entered children (N = 83) in Austrian nurseries (N = 29). In Austria, Early Childhood Education is a very young discipline (university-based since 2010) and the data situation is limited. With the EIK-Study, firstly, an insight into the realized interaction quality (measured with the "Grazer Interaction Scale for Children between 0 and 3 Years" (GrazIAS 0-3) from Walter-Laager, Flöter, Geißler, Petritsch & Pölzl-Stefanec, 2019) is given and secondly, its developmental effects on children in their first year of ECEC centers. The results show that noticeable leaps in the children´s development (motor skills, speech, cognition and social-emotional areas were measured with the ET6-6-R from Petermann & Macha, 2015) can be recorded in nurseries with a high interaction quality. In summary, it can be said that the youngest of our society need sensitively-responsive, supportive, stimulating and emotionally present early childhood educators in order to be adequately supported in their individual development.

Keywords: Interaction quality, Nurseries, Austria, GrazIAS, Early childhood

Individualized interaction quality and its relations with children's reported behavioral strengths and difficulties in a German Kindergarten
Presenting author: Heike Wadepohl, Institute of Special Education, Leibniz University Hannover, Germany

Findings prove that high-quality interactions in Kindergartens have a significant impact on children's development (Burger, 2010; Mashburn et al., 2008) Interaction quality is mostly assessed on classroom level via the CLASS-instruments (e.g. Pianta et al., 2008). Thus, the perspective of the individual child is neglected (Smidt, 2012). Moreover, child-related variables such as personality, developmental status, socio-emotional skills are rarely taken into account (e.g. Acar et al., 2015; Smidt & Embacher, 2021). This paper focuses on an

individualized assessment of children's interaction quality and its relationships with children's reported behavioral "Strenghts and Difficulties". Explorative analyses rely on a sample of 30 Kindergarten-children. Interaction quality was assessed via live-obervations with the inCLASS (Downer et al., 2012) on a 7-point rating scale. Children's behavioral and emotional problems and strengths are reported via the SDQ on a 7-point rating-scale (Goodman, 2015) by teachers. Observational results show low scores for children's engagement with teachers (M=1.96, SD = 0.66) and scores in the mid-range for engagement with peers and tasks (M_{Peer}=3.38, SD_{Peer}=0.82; M_{Task}=4.38, SD_{Task}=0.67). Negative Classroom Engagement was low (M=1.56, SD=0.45). These results are comparable with the existing inCLASS-data published from Germany (Kluczniok & Schmidt, 2021). Furhermore, we found significant correlations between the SDQ-scale prosocial behavior and Positive Engagement with Peers and between the SDQ-scales conduct problems as well as hyperactivity and Negative Classroom Engagement (r=.38-.43, p<.05) indicating congruence between observation and teacher-report especially with regard to externalizing behaviors.

Keywords: Interaction quality, inCLASS, SDQ, Child-related factors

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The role of children's personality in relationships between preschool teachers and children

Presenting author: Wilfried Klaas Smidt, University of Innsbruck, Department of Psychosocial Intervention and Communication Studies, Austria
Co-authors: Eva-Maria Embacher, Laura Zöggeler-Burkhardt

The positive impact of warm and supportive relationships between preschool teachers and children on children's development is well documented through a wide range of research studies (Degotardi, Page & White, 2017; Harwardt-Heinecke & Ahnert, 2013; O'Connor & McCartney, 2007; Sabol & Pianta, 2012). However, research gaps exist regarding the prediction of the quality of professional-child relationships. In particular, influences of children's personality on the quality of relationships with preschool teachers are rarely focused. This is especially true for research from German-speaking countries, although those influences are theoretically plausible and empirically supported by some U.S. studies (Jensen-Campbell, Knack & Rex-Lear, 2009; Rudasill & Rimm-Kaufman, 2009). The study aims to address this research gap by using a sample of 163 children attending 65 preschool classes in Austria. Regression analyses with robust standards errors (according to clustering of children in preschool classes) are used to investigate the influence of the three personality types "resilient", "overcontrolled" and "undercontrolled" (based on the "Five Factors Questionnaire for Children - Short Form"; Asendorpf, 2007) on the preschool teacher-child relationship quality (assessed with the "Student-Teacher Relationship Scale"; Pianta, 2001). After controlling for characteristics of the children (gender, language skills, family language, parent's educational level) and the preschool teachers (self-efficacy, overcommitment, professional experience), the results show that "closeness" was lower in overcontrolled and undercontrolled personality types compared to the resilient type, while "conflict" tended to be higher in the undercontrolled type compared to the resilient type. Implications for practices in preschool and further research are discussed.

Keywords: Personality, Preschool teacher-child relationships, Preschool, Austria

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Inside out: A scoping review of optimism and growth mindsets for child development and well-being in ECEC

Presenting author: : Ingrid Midteide Løkken, Norwegian Centre for Learning Environment and Behavioural Research in Education, University of Stavanger, Norway
Co-authors: Janine Anne Campbell

Early social and emotional development is foundational for children's health, education, well-being, and later adjustment in school and society. Habitual explanatory styles (e.g., mindsets and optimism), acquired during early childhood, may endure throughout life. Research has, to date, focussed primarily on the relationship between parent's explanatory styles and children's developmental outcomes, but children's development is

also influenced by significant adults in other settings. Few examples of research, programs, or interventions focussing on the relationship between the optimism and mindsets of ECEC teachers and children, exist. Learned optimism replaces a pessimistic explanatory style with a more optimistic one. It has been shown to enable older children to see possibilities and experience mastery during challenges and adversities, and to approach academic problems in a hopeful, positive, and openminded way. Growth mindset is the belief that skills and abilities can be strengthened, improved, and refined through effort and perseverance. Older children that learn to adopt a growth mindset have been shown to become more resilient, have higher self-esteem, handle stressful situations better, improve their academic results, and overcome learned helplessness. This scoping review systematically explores the breadth and depth of the literature on optimism and growth mindsets in teachers and young children in ECEC contexts. It covers qualitative and quantitative literature published post-1995, reporting on children up to the age of 7, with theories of change that include learned optimism and/or growth mindset and their relationship with the development and well-being of young children in ECEC.

Keywords: Optimism, Growth mindset, Well-being, Children, ECEC

Session E2 – Paper session [15.30–17.00]

Playing at Reading: Young Children's Enactments as Theorizings of Reading
Presenting author: Suki Jones Mozenter, University of Minnesota Duluth, United States of America

Play is central to young children's development (Lester & Russell, 2010). However, schools and teachers often find themselves discouraging play during moments of literacy instruction (Miller & Almon, 2009). Young children in schools may be directed to focus on reading and their play may be viewed as off-task behavior or a distraction. What happens, however, if we reposition play during reading as children's enactments of their theorizings of what reading could be? This paper centers three examples from a primary literacy classroom where children were playing at reading. It examines these enactments as children's theorizings of what reading could be and who readers could be. Applying a community of practice (Lave & Wenger, 1991; Wenger, 1999) lens in a poststructural analysis (Kuby & Vaughn, 2015) that positions the children as central, rather than peripheral, practitioners, I suggest that children's enactments of play during reading actually create expansive and creative notions of what constitutes reading and who counts as a reader. I also propose this framing as a tool for educators to use to build toward more inclusive literacy instruction.

Keywords: Primary education, Literacy, Sense-making, Communities of practice

Can guided play enhance children's learning and development in educational contexts? A systematic review and meta-analysis
Presenting author: Elizabeth Byrne, PEDAL, Faculty of Education, University of Cambridge, United Kingdom
Co-authors: Kayleigh Skene, Christine O'Farrelly, Natalie Kirby, Eloise Stevens, Paul Ramchandani

Guided play is a play-based pedagogical approach that aims to combine attributes of children's play, such as fun, enjoyment, and motivation, with the important role that adults play in scaffolding learning. While some studies have found positive associations between guided play and children's learning outcomes, it is difficult to draw firm conclusions regarding overall effectiveness due to variability in study methodologies and parameters. This systematic review and meta-analysis explored studies that sought to support children's learning and developmental outcomes, comparing guided play with direct instruction or free play. Interventions from 39 studies were reviewed (published 1977–2020), 17 of which were included in meta-analyses (N total = 3893; M child age = 1–8 years; % girls = 49.8). Guided play had a greater positive effect than direct instruction on early maths skills ($g = 0.24$), shape knowledge ($g = 0.63$), and task switching ($g = 0.40$), and than free play on spatial vocabulary ($g = 0.93$). Differences were not identified for other key outcomes. A narrative synthesis approach was used to map similarities and differences in how guided play

was theoretically conceptualised and in how it was implemented; a large degree of heterogeneity was identified across the studies on both dimensions. Conceptually, some studies theoretically acknowledged key components of guided play (e.g., the value of child-led activities and of flexible and sensitive adult guidance), while others did not. Practically, in terms of how guided play was implemented, levels of child autonomy and adult control varied across the interventions.

Keywords: Guided play, Intervention, Meta-analyses, Systematic review

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The impact of a construction play on 5- to 6-year-old children's reasoning about stability

Presenting author: : Anke Weber, University of Luxembourg, Luxembourg
Co-authors: Timo Reuter, Miriam Leuchter

Young children have an intuitive understanding of science concepts such as stability and construct intuitive theories they can adjust when confronted with counterevidence. With increasing age, children acquire a center-of-mass theory (COM) and succeed in balancing asymmetrical objects. However, it remains unclear how this development can be promoted. Science education in early childhood might be implemented through guided play which comprises elements of scaffolding. Therefore, we compared a guided play group with material and verbal scaffolds (Verbal group) with a guided play group with material scaffolds (Material group) and a Free play group. 183 5- to 6-year-old children participated. Children's theories about stability were assessed by presenting them with three asymmetrical block constructions. The children rated the stabilities and explained their answer. Two weeks later, the children were assigned to one of the intervention groups and played with blocks according to their group for an hour. The same reasoning task was administered directly after the intervention and ten weeks later. At the first measurement time, 19% explained stabilities with COM. We applied the binomial distribution, $\sigma=1.64$, to categorize children into children explaining their reasoning with COM consistently or inconsistently after the intervention. Children with ≥4 COM explanations of 6 were categorized as consistent. Children in the Verbal group were most likely to use COM consistently. Children in the Material group were not more likely to use COM consistently than the Free play group. Guided play with material + verbal scaffolds can support children's COM theory.

Keywords: Guided play, Free play, Science learning, Intuitive theories

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Children's perspectives on birthday ceremonies in times of routine and crisis

Presenting author: Shulamit Hoshen Manzura, Oranim College of Education, Israel
Co-authors: Sigal Achituv

The research presented in this proposal deals with young Israeli children's perspectives on birthday ceremonies. Birthday ceremonies function as a space of interactions between children, families and educators. Each of these social agencies contributes a different perspective to the ceremony. This research aims to understand how children perceive birthday ceremonies in different ages (3-8) and different cultural contexts before and during the COVID-19 pandemic. Researching children's perspective provides an understanding of their worlds so that they can be engaged as partners in educational processes. Findings show children relate to birthday ceremonies in emotional, cognitive, and socio-cultural aspects. Children spoke about what they like or dislike in the birthday ceremony, time and age perceptions and about the role of all participants. Implications suggest that listening to children's interpretations of birthday ceremonies provide educators with a deeper understanding of the ways in which birthday ceremonies can be designed to suit the child's development and promote his/hers active engagement. The research data that was collected during the Covid pandemic strengthens the understanding, that for young children who experience their birthday as a concrete event of moving to a new stage, the existence of the familiar ceremony is essential, especially in times of routine disruption and social isolation. Additionally, the research points at children's from five years old desire to influence the ceremony's nature. Overall, supporting children's agency

while celebrating their birthday through sharing choices and decisions, strengthens feelings of ability and security in routine days, as in crisis situations.

Keywords: Birthday ceremonies, Children's perspectives, Covid pandemic, Children's agency, Active engagement

Session E3 – Symposium [15.30–17.00]

Unlocking the potential of digital media in ECEC
Chair: Anne-Kristin Cordes, State Institute for Early Childhood Research and Media Literacy, Germany
Discussant: Franziska Cohen, Pädagogische Hochschule Freiburg, Germany

While digital media have become ubiquitous in children's lives (mpfs, 2021), their use in early education is still controversial in Germany and Austria. One reason might be the lack of studies from German-speaking contexts addressing issues of effective digital media use in ECEC for fostering children's development (Cohen & Hemmerich, 2019). To help bridge this gap, this symposium presents research into educators' attitudes towards digital media use in daycare settings, the implementation approaches used and the effects on children's skills with a focus on digital storybooks and children's language development. The first paper offers insights from a survey that explored Austrian early childhood educators' beliefs regarding digital media use as well as perceived challenges and potential of digital media in ECEC settings. The second presentation reports on the reasons, methods, contexts and target children of digital storybook use in German daycare centers based on a qualitative multiple case study design. Findings from a quasi-experimental pilot study comparing two methods of digital storybook reading in German-speaking classrooms are presented in the third talk. The final paper provides a larger perspective by presenting data from an international metaanalysis on the effectiveness of digital storybook interventions in ECEC compared to regular childcare or print book reading. All findings are discussed in light of practice implications and future directions.

Keywords: Digital media, ECEC, Language development

Beliefs of early childhood educators regarding the use of digital media in Austrian preschools
Presenting author: Lars Eichen, University Graz, Austria
Co-authors: Anna Libiseller, Karoline Rettenbacher, Marion Sommer

Increasing digitalization affects children's lives and poses new challenges for early childhood education. The beliefs of early childhood educators are crucial in determining how and whether digital media are integrated into everyday education (Blackwell et al., 2014; Nikolopoulou & Gialamas, 2015). The following research questions will be focused on: 1. What beliefs do Austrian early childhood educators have regarding the use of digital media? 2. What challenges and opportunities do Austrian early childhood educators see in the use of digital media to foster children´s media competences? A piloted online questionnaire was used to gather data on educator´s beliefs regarding the use of digital media of N=342 early childhood educators (age: M=34.4 years, SD=10.7; professional experience in years: M=12.6, SD=10.5) were surveyed. First results show that 10.5% of early childhood educators reject the use of digital media and 65.5% support it. Opportunities are perceived primarily in the development of a basic understanding of technology, in creating one's own products, and in experiencing one's own competencies. The potential risks most frequently mentioned are the potential for addiction, increased conflicts and the atrophy of motor skills. More analyses regarding educators' beliefs related to further and educator training will follow.

Keywords: Educators' beliefs, ECEC, Digital media

Digital storybooks in everyday life of ECEC centers: Implementation and potential

Presenting author: Katarina Groth, German Youth Institute (DJI), Germany
Co-authors: Lena Weihmayer

Although or maybe because children nowadays grow up in a digital environment (Wiesemann et al., 2020), the use of digital media in ECEC is discussed controversially in Germany (Kutscher/Schäfer-Biermann, 2018). However, pedagogically meaningful use of digital media in ECEC can help promoting inclusion and equality, as well as fostering child development. In Germany, studies addressing the implementation and potentials of digital media in daycare are still lacking (Hemmerich/Cohen, 2021). Therefore, the present study investigates the use of digital storybooks in everyday life of ECEC centers in Germany. It focuses on what kind of digital storybooks are used as well as why, how, when and with whom. Furthermore, it scrutinizes their potential, e.g. for language promotion. A qualitative multiple case study design was chosen to answer these questions. In four selected day care centers interviews, focus groups and observations with videography of digital storybook activities are performed. Data collection will be finished in February. Preliminary analyses show a heterogeneous understanding of what digital storybooks comprise and accordingly, different ways of implementation and goals. Moreover, language support highly depends on teachers and the potential of digital storybooks are not always recognized. For example, digital storybooks offer possible applications for language promotion, like multilingual presentations. This enables the integration of a child`s family language, even if the teacher does not speak this language. These and further results regarding handling, potentials and language interaction quality will be presented and discussed.

Keywords: Digital storybooks, ECEC, Everyday life implementation, Potentials, Language promotion

Fostering child language with short-term digital storybook interventions – Dialogic Reading or screen-based story exposure?

Presenting author: Anne-Kristin Cordes, State Institute for Early Childhood Research and Media Literacy, Germany
Co-authors: Franziska Egert, Fabienne Hartig

There is a growing body of evidence that reading stories to children has the strength to facilitate their language skills in the early years. Research suggests that digital storybook reading offers similar potential and that the reading method might matter (Roskos et al., 2016; Takacs, Swart & Bus, 2015). This cluster-randomized trial evaluates effects of digital storybook reading in kindergarten on global language, word learning, morphology and narrative skills. Two reading methods, (a) Dialogic Reading and (b) supervised, independent screen-based story exposure, are assessed. Twenty-seven children (aged 4-5) received a short-term small-group intervention (3 sessions) with a digital storybook on a tablet using one of the two methods with audio narration. Children in both groups made significant gains on receptive vocabulary and high-frequency verb morphology. Post-contrasts further revealed a substantial advantage of Dialogic Reading on expressive vocabulary, verb morphology and narrative skills. A descriptive benefit of Dialogic Reading was found for receptive vocabulary and unrelated story retell. Well-written digital storybooks with audio narration may be used in early education to foster children's language skills. Educators can choose between both methods depending on learning goals.

Keywords: Digital storybooks, Language support, Language development, ECEC, Digital media

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Digital storybook or print book? Meta-analysis on the effectiveness of digital storybook interventions on language learning in early childhood education and care

Presenting author: Franziska Egert, Katholische Stiftungshochschule Benediktbeuern, Germany
Co-authors: Anne-Kristin Cordes, Fabienne Hartig

Language abilities in the early years are a strong predictor of children's success in school. However, a considerable number of children enter school with poor language skills. Meta-analytic evidence suggests that shared book reading is a valuable tool to compensate this gap. In the digital age, digital storybooks might offer new opportunities to foster language development in ECEC (Takacs, Swart & Bus, 2015). This meta-analysis investigates the effectiveness of digital storybook interventions in comparison to regular childcare and to shared print book reading in classrooms. The systematic search, examining studies from 2000-2018, was carried out by two independent reviewers and a random-effect model was used to aggregate findings. Altogether, 17 studies with 30 different digital storybook treatments were included in the meta-analysis. Children benefited significantly more from the digital storybook interventions compared to regular childcare (g=0.85). Activities with digital storybooks were also ahead of print storybook reading in ECEC (g=0.45). The effectiveness was mainly moderated by story repetition and number of sessions, and by their embeddedness in the classroom. Digital storybooks were primarily researcher-developed and included congruent functions to foster language development. Implications for practice and research are discussed.

Keywords: Metaanalysis, ECEC, Digital media, Digital storybooks, Language development

Session E4 – Symposium [15.30–17.00]

Cultural diversity in educational contexts from multiple perspectives: the standpoint of children, professionals, and parents

Chair: Sofia Guichard, University of Porto, Portugal
Discussant: Bodine Romijn, Utrecht University, the Netherlands

Cultural diversity raises the challenge of building inclusive, equitable and supporting communities in educational contexts from early age (Juang & Schachner, 2020). On one hand, cultural diversity asks children to learn how to communicate and build relationships with people from diverse backgrounds (Barrett et al., 2013). On the other hand, cultural diversity calls for teachers to build their intercultural competences and ensure that all children have the best opportunity to learn (Richards et al., 2007). Moreover, in diverse contexts, teachers and parents from diverse cultural and linguistic backgrounds need to interact and cooperate (Sulzer, 2013). The current symposium aims to address how cultural diversity in educational contexts is considered from multiple standpoints, namely how children, professionals, and parents are responding to increasingly culturally diverse educational contexts. The first presentation focuses on children's standpoints on cultural diversity, exploring their views on intercultural dilemmas and how these can be captured through an assessment system. The second presentation connects teachers' and children's standpoints and analyses how they explore through conversation the bilingual feature of a picture book. The third examines professionals' standpoint on cultural diversity, by studying teachers' views on the need for improving early language education and intercultural activities. The symposium ends connecting teachers and parents' standpoints with a presentation focusing on how teacher-parent conversations can be facilitated by intercultural interpreters in linguistically diverse contexts. The discussion will consider how diverse perspectives can contribute to an integrated view of the challenges and opportunities arising in culturally diverse education contexts.

Keywords: Children, Cultural diversity, Education, Parents, Teachers

How can we capture children's perspectives on intercultural dilemmas in educational contexts? The development of an assessment system on global competence

Presenting author: Sofia Guichard, University of Porto, Portugal
Co-authors: Gil Nata, Marina Serra Lemos, Joana Cadima

Global competence is considered a fundamental capacity to cope with diversity that encompasses the ability to understand and respect diverse perspectives and interact with people from different cultures in an open, appropriate, and effective manner (Boix Mansilla & Jackson, 2011). While its importance in educational settings is increasingly recognized, available assessment measures only target adults or adolescents (e.g., OECD, 2018). The current study stems from a broader project focused on the assessment and promotion of global competence and aims to develop a scoring system to quantitatively code children's perspectives on intercultural dilemmas. Thirty-six children (Mage = 8.56; DP = 0.61) were individually presented to dilemmas based on prior research with adolescents (Schwarzenthal et al., 2019), describing a conflict between a person with a minority religious/cultural background and a person with a religious/cultural majority background. Children answered to open-ended questions on the motives for the person's behavior and possible solutions. The analysis was based in an iterative process between bottom-up and top-down analytical procedures (Braun & Clarke, 2013). Results focus on the assessment system, its indicators, and examples of children's responses. The scoring system includes a range of indicators on the causes for the person's behavior (e.g., "recognizes the influence of cultural or religious belonging on behaviors") and possible solutions (e.g., "proposes to intervene by protecting the child from discrimination"). This assessment system will allow to quantitatively measure children's global competence and their perspectives on intercultural dilemmas, in developmental and contextual relevant ways.

Keywords: Assessment, Cultural diversity, Global competence, Intercultural dilemmas

Conversing with children about language diversity

Presenting author: Johanna Quiring, St.Gallen University of Teacher Education, Switzerland
Co-authors: Franziska Vogt

Talking with children about their home language(s) is practiced in order to recognize aspects of their identity related to their home language and culture. Recognition can be seen as closely linked to how participants are addressed in an interaction (Rose & Ricken, 2018). This question is applied to two sequences out of two different picture book readings using conversation analysis as methodological framework (Heritage, 2005) for multimodal microanalysis. In both sequences a teacher and three children with different language backgrounds start to explore the bilingual feature of a picture book. The analysis reveals specific strategies of addressing: both teachers ask questions or make an initial statement without addressing anyone specific. This enables children to choose whether or not they want to speak up about the topic. One teacher addresses a child as an expert regarding the language situation at home. On the contrary, the other teacher questions the child's expertise. None of the teachers open up the space for the children to steer the conversation. Strategies for addressing ensuring recognition and social inclusion will be discussed.

Keywords: Language diversity, Social inclusion, Picture book reading, Interaction, Conversation analysis

Predicting the need for improvement in early language education and intercultural activities in German ECEC settings

Presenting author: Susanne Kuger, German Youth Institute (DJI), Germany
Co-authors: Diana Schacht

Increasing global migration flows have brought about an increase in cultural diversity in receiving societies. As a result, numerous studies have focused on the role of diversity in integration processes - also in Early

Education and Care (ECEC) settings. In Germany, children with a migration background show lower language competence when entering primary school, enter childcare at a later age and are less likely to attend high quality care settings. Language support and intercultural pedagogical activities are therefore both in dire need, especially in culturally diverse settings. Using data from more than 8,000 pedagogical staff from the representative ERiK-Surveys 2020, we empirically examine the relevance of three sets of variables related to teachers' views on the need for improvement in early childhood language education and intercultural pedagogy: teacher characteristics and professional training, setting curriculum and governance, and student composition and neighborhood diversity. Empirical results show that in both areas the pedagogical staff see a need for improvement in German ECEC settings (language education 25%, intercultural pedagogy 34%). In this context, the pedagogical staff sees a need for improvement, for example, if they have less professional experience, if there are no language-promoting materials or language courses offered and if the children do not speak in German in the day care centre either. So far, however, a large part of the variance in the models cannot be explained (more than 90%). The results are discussed in terms of the state of research and the paper concludes with some best practice advice.

Keywords: Early childhood education and care, Diversity, Intercultural pedagogy, Language support, Quality

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Intercultural interpreter-mediated parent-educator talks in childcare centers
Presenting author: Fabienne Bohler, University of Teacher Education St.Gallen, Switzerland
Co-authors: Franziska Vogt

The participation of children with a migration background in early childhood education can facilitate integration into society (Edelmann, 2018). However, educators often experience cooperation with families with a migration background as challenging (Sulzer, 2013). Intercultural interpreters can act as a link between parents and educators and contribute to balancing the asymmetrical power imbalance (Moreno, 2018). There is almost no existing research on parent-educator talks supported by intercultural interpreters in early childhood education. The study therefore seeks to explore the structure, content, and social interaction of the talks. The study is embedded within a large project promoting language fostering in childcare centers for second language learners. Experiences show that many childcare centers do not focus educator-parent cooperation systematically and have difficulties to address complex topics due to language barriers. The qualitative study is based on audio recordings of the talks. For data analysis Grounded Theory will be employed. The results will provide evidence on the characteristics of successful interactions between parents and educators supported by intercultural interpreters. *Keywords:* Childcare center, Parent-educator talks, Intercultural interpreter, Dialogue interpreting

Session E5 – Invited symposium [15.30–17.00]

Building collaborative communities with children
Chair: Giulia Pastori, University of Milano-Bicocca, Italy
Discussant: Giulia Pastori, University of Milano-Bicocca, Italy

Social inclusion, equality and active citizenship have increasingly become key issues and inescapable priorities for the worldwide political agenda and in the academic debate, especially in the field of education (UNESCO 2005, 2013, 2014; OECD 2018a, 2018b). Participatory and transformative processes involving all stakeholders, including children, are a strategic area of political and research investment to develop more inclusive, just, resilient and democratic communities (Cook et al., 2018). In the last decades, children have been recognized - at least in principle - as active social actors from early childhood, with a central role in the processes of growth and learning, and as competent and reliable informants, experts in their own experience (O'Keane, 2008). This change has pushed the research in developing theoretical and empirical reflections on

how to give children a voice while offering them the opportunity to be actively and meaningfully engaged and experience citizenship and agency in research, in school and in local community participatory processes (Bessell, 2015; Barker, Weller 2003b; Darbyshire, 2000; Sommer et al., 2010). The symposium, drawing on the panellists' research experience in four countries, will discuss the ethical and methodological challenges of research with and for children. It will also include reflections on the potential formative impact of listening to children's perspectives and how it can contribute to promoting democratic and inclusive learning environments and shaping innovative forms of civic education and teachers' training.

Keywords: Children's voices, Children's agency, Democratic experiences, Early childhood education, Participatory research

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Young Children's Voices as the *Dispositif* in ECE

Presenting author: Jane Murray, University of Northampton, United Kingdom

This presentation references Foucault's (1977) terminology for social apparatus promoting power to advance the argument that knowledge constructed by, with, and about young children may be reified if their voices are positioned as the *dispostif* for early childhood education (ECE). This argument is based on findings from the *Young Children As Researchers* (YCAR) study which is ongoing and investigates ways that children up to 8 years may be considered researchers. It is posited that young children's natural capacity for research may be a powerful driver for their own - and their practitioners' – learning in ECE. The presentation builds on the original YCAR project which adopted a 'jigsaw' methodology to co-research with children aged 4-8 years (n=138), their parents, practitioners, and professional researchers to establish the warrant that young children conduct research in their everyday lives through conceptualisation, exploration, problem solving and basing decisions on evidence. These results are synthesised with more recent YCAR research findings concerning children's questioning to construct the proposed argument according to three key elements. First, recognising young children as competent thinkers and actors is of primary importance if they – and the adults who work with them – are to optimise both parties' learning. Second, such recognition is predicated on adults understanding and responding to multi-modal 'voices' children adopt to construct knowledge. Third, addressing the first two elements requires that power in ECE be redistributed from macro- to micro-level wherein resides the authentic expertise of young children and their practitioners concerning matters that affect young children.

Keywords: Dispositif, Early childhood education, Children's voices, Knowledge, Young Children as Researchers

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Belonging in a diverse preschool group

Presenting author: Johanna Einarsdottir, University of Iceland, Iceland
Co-authors: Sara Ólafsdóttir

The presentation is built on a study which aim was to gain a deeper understanding of young children's participation in a diverse peer culture within an Icelandic preschool and their sense of belonging in the preschool community. The participants were 12 children, aged 5–6 years. Data were constructed with each child while they engaged in a walking tour of the preschool in which children took photographs of features of interest as a basis for a subsequent conversation. Participant observations in the preschool classroom were also undertaken to understand in more detail the nature of children's relationships with each other. Ethical issues considered during the study are discussed, particularly children's agency and power, since the disadvantage of children who had diverse background and did not speak the dominant language was conspicuous. The challenges of childhood studies are considered in the light of recent concerns and reconstructions. Further the presentation pinpoints the contributions of childhood studies and what the research community can learn from them.

Keywords: Childhood studies, Belonging, Relationship, Ethical issues

The whys and wherefores of democratic experiences with children. From listening to collaborating

Presenting author: Marta B. Esteban, Institute for Educational Research, University of Barcelona, Spain
Co-authors: Ana Ma. Novella Cámara

The inclusion of children as meaningful and authentic agents and active citizens whose experiences and knowledge have value in themselves is, first and foremost, a legal obligation urged by the Convention on the Rights of the Child based on the recognition of their participatory rights. It is also a moral imperative given their historical status as subaltern and peripheral and their condition as unfinished beings. At this juncture, we present contributions derived from several research projects that allow us to launch some keys for the inclusion of children in participatory experiences in which children have more than just a voice. These are democratic experiences where children and adults act collaboratively in settings such as the school environment, local communities, and research projects. This inclusion occurs at different levels: as co-builders of their school environments, consultants and interlocutors in municipal political processes, and co-researchers in research processes. We highlight that these experiences favour their empowerment, sense of agency, and progressive autonomy development among these keys. Likewise, they contribute to developing their citizenship competencies and their active and transformative citizen individual and collective identity. To this end, it is essential to recognise children as active subjects with valuable capacities and experience who play a decisive role in constructing more egalitarian and fairer democratic societies, overcoming children's vision as passive recipients of care and services. It is in the hands of adults to build intergenerational relationships of mutual recognition and respect that gravitate on shared reflections and collaborative actions.

Keywords: Children's citizenship, Children participation, Children's agency, Democratic experiences, Intergenerational collaboration

Promoting democratic learning environments and teachers' professionalisation through children's active participation

Presenting author: Valentina Pagani, University of Milano-Bicocca, Italy
Co-authors: Giulia Pastori

The present contribution will propose some reflections drawn from the international study titled 'Feel good: Children's view on inclusion', set within the framework provided by the EU-funded collaborative project ISOTIS (www.isotis.org). This international qualitative participatory research study involved 120 preschool children in areas characterised by high cultural diversity and social inequality in six European countries (namely, Germany, Greece, Italy, Norway, Poland, and the Netherlands). The main aims were to 1) explore what factors the young participants identified as promoting or undermining well-being and inclusion at school, and 2) elicit their suggestions to make school more welcoming and inclusive. The study adopted a multimethod approach and was intended as an opportunity for the children involved to be actively and meaningfully engaged and to experience citizenship and agency. The contribution will argue that the value of these participatory experiences is not limited to the impact on children. Rather, it can play a significant role also in teachers' professionalisation, representing a powerful stimulus to review educational practices and promote (more) democratic and inclusive learning environments.

Keywords: Children's voices, Democratic experiences, Inclusion, Participatory research, Teachers' professionalisation

Thursday, 14 July 2022

Session F [09.00–10.30]

Keynote II [11.00–12.00]

Session G [13.00–14.30]

Session H [15.00–16.30]

Session F1 – Paper session [09.00–10.30]

Language and Classroom Adjustment Among Preschool- and Kindergarten-Age Dual Language Learners and the Moderating Role of Shyness

Presenting author: Simone Halliday, Institute of Educational Science, University of Bern, Switzerland
Co-authors: Ankica Jurkic, Tina Hascher

Early classroom adjustment is an important and consequential task in early childhood, particularly for dual language learning children (DLL) who grow up with a home language that differs from the societal language. We identify language and temperamental shyness as two influencers of successful classroom adjustment. For DLL children, more advanced skills in the societal language may promote classroom adjustment through richer social interactions with teachers and peers. Additionally, shyness may affect adjustment by both inhibiting such social interactions and by altering the effect of language. These associations were assessed among 77 DLL children, aged 35-65 months (M=47.97; SD=8.43). Receptive and productive societal language skills were assessed by established measures, and shyness was evaluated through parent-report. Teachers assessed children's adjustment, operationalized as the level of integration in the classroom. Preliminary results suggested that better societal language skills were related to improved classroom adjustment. Although shyness did not directly affect adjustment, it moderated the effect of language. Specifically, as children's level of shyness increased, language skills exhibited a weakening effect on classroom adjustment. These results bear relevance for the early care of DLL children: It is important to foster the societal language skills of DLL as they enter the early school context, but language skills not help all children, particularly those who are shy, in the same way. Thus, educational programming must take a multi-prong approach in supporting the educational development of DLL children.

Keywords: Classroom adjustment, Bilingualism, Shyness, Language skills

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Translanguaging pedagogy and creative activism for preschool children, parents, and teachers

Presenting author: Gabrijela Aleksic, Lifespan Development, Family and Culture, Luxembourg

There are 64 % of four-year old children who not speak Luxembourgish at home (MENJE, 2018). The government proclaimed multilingual early education mandatory in 2017, obliging teachers to develop children's Luxembourgish, familiarizing them with French, and valuing their home languages. Thus, the present project was threefold: (1) to offer an 18-hours professional development (PD) course in translanguaging pedagogy to 40 teachers over 6 months, (2) to strengthen home-school collaboration, and (3) to support children's linguistic, socio-emotional, and cognitive development and engagement in the classroom. The results from teacher questionnaires, focus groups, and interviews, showed that there was some positive change regarding the attitudes towards children's home languages. The interviews with 17 parents indicated that there was a need for more home-school collaboration. The tests in early literacy and numeracy with 23 preschool children over one year, identified that children performed higher in their home languages. The video observations showed that every time the teacher used children's languages in the classroom, this impacted positively their well-being. Following the principles of creative activism, the author produced three outcomes: (1) the website with over 100 practical activities on how teachers can involve children's languages and families, (2) the illustrated book Sumak for parents, showing difficulties with integration in a new country, and (3) the illustrated book, Mara's song for preschool children, showing how Mara, a girl who is laughed at because of her language and culture, finds her way through singing a song inspired by a bird.

Keywords: Translanguaging pedagogy, Creative activism, Website, Illustrated books, Preschool

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Code-switching During Shared Reading in Bilingual Families

Presenting author: Dilman Nomat, Department of Education, University of Oslo, Norway
Co-authors: Vibeke Grøver, Veslemøy Rydland

A large body of research has documented the benefits of early shared-reading for dual language learners. Bilinguals have the benefit of using both of their languages while engaging in literacy activities. However, little is known about how exactly bilingual parent-child dyads alternate between their languages during shared reading. The objective of this study was to explore how Kurdish-Norwegian (four and five year's old) dual language learners living in Norway learn to use their first language (Kurdish) and second language (Norwegian) while sharing a book with their parents at home. We examined this question qualitatively in a three-wave longitudinal case study with seven parent-child dyads. Specifically, our study sought to better understand 1) the characteristics of code-switching over time during parent-child shared reading, and 2) how parents use code-switching in scaffolding dialogues during shared reading. We collected audio recordings of parent-child dyads' shared reading sessions at three time points (over the course of six months). In addition, parents were interviewed to assess the children's home literacy and language environment. The data revealed several key findings. First, patterns of code-switching differed both within and between the seven dyads at the onset of the study. Second, these patterns changed in unique and complex ways over time. Finally, overall, parents used code-switching as a tool to scaffold dialogues and to support their child's understanding while doing shared reading. These findings build on our current understanding of how bilingual parent-child dyads use their languages as a resource in dialogues while sharing a book together.

Keywords: Early literacy, Dual language learning, Parent-child, Preschoolers, Case study

Profiles of language use and exposure among diverse young Norwegian dual language learners, and the association with language proficiency: A latent class approach

Presenting author: : Siri Bratlie, Department of Education, Faculty of Educational Sciences, University of Oslo, Norway
Co-authors: Veslemøy Rydland, Ratib Lekhal, Vibeke Grøver

This study examines whether the variation in use and exposure of first (L1) and second (L2) language among young Norwegian dual language learners (DLLs) reflects specific underlying subgroups, and subsequently whether subgroup membership is associated with language proficiency in each language. Participants are 594 young DLLs with diverse language backgrounds recruited from 56 early childhood education and care (ECEC) centers in multilingual and multiethnic areas of Oslo, Norway (ages 17 – 68 months). The young DLLs' L2 proficiency (i.e. Norwegian) is assessed with a combination of standardized/norm-referenced and researcher developed measures. Information about L1 proficiency, as well as L1 and L2 use and exposure, is currently being gathered via parental survey. Using latent class analysis, the young DLLs will be classified into latent classes if distinct patterns of language use and exposure emerge from these survey responses. The association between latent class membership and language proficiency will be examined following the manual ML three-step approach. Results from this study can generate a greater understanding of common patterns of L1 and L2 language use and exposure among a diverse group of young DLLs, as well as of the association between these patterns and the variability in young DLLs' L1 and L2 proficiency. In order to support the language development of this diverse population in ECEC centers, such an understanding is essential.

Keywords: Young dual language learners, Language use and exposure, Language proficiency, Latent class analysis

Session F2 – Paper session [09.00–10.30]

Do counter-stereotypic stories influence preschool children's gender stereotypes and behavioral intentions?

Presenting author: Jan Lenhart, Otto-Friedrich-Universität Bamberg, Germany

Children's books have been proposed as sources for acquiring, reinforcing, but also for breaking gender stereotypes in early childhood. To date, the research picture is inconclusive concerning effects of counter-stereotypical stories on gender stereotypes and gender-associated behavior and intentions. In addition, potential effects of presenting the story protagonist as gender-typical or atypical have not been examined. Accordingly, the aims of the present study were (1) to examine the impact of counter-stereotypical stories on preschool children's gender stereotypes and their behavioral intentions towards gender-associated activities, and (2) to explore the effect of gender typicality of the story protagonist on effects of counter-stereotypical stories. To do so, 75 preschool children listened to 32 counter-stereotypical stories featuring either a gender-typical male or female protagonist. Gender-association ratings and behavioral intentions towards gender-associated target activities were assessed before and after story presentation. We found that counter-stereotypic stories affected gender-association ratings of male target activities. Concerning behavioral intentions, we found that boys showed a descriptive increase of behavioral intentions towards stereotypically female activities and a descriptive decrease towards stereotypically male activities. However, the effects for girls were more pronounced, with a significant increase towards stereotypically male activities and a significant decrease towards stereotypically female activities. The results point out that the effects of counter-stereotypical stories differ for gender stereotypes and behavioral intentions, differ for male and female gender stereotypes, and differ for male and female preschoolers.

Keywords: Story, Children's books, Gender stereotypes, Gender typing

The impact of Shared Book Reading on Preschoolers' Repeating Patterning Ability

Presenting author: Nore Wijns, KU Leuven, Belgium
Co-authors: David Purpura, Joke Torbeyns

The present study evaluated the effectiveness of a shared book reading intervention on preschoolers' repeating patterning ability. We randomly assigned 94 children (Mage = 5y0m) to intervention (n = 46) or active control (n = 48) conditions. In both conditions, well-trained students read two researcher-designed picture books five times each over three weeks (i.e., ten reading sessions) to small groups of three to five children. On every page, interventionists read one question and interacted with the children in line with the principles of dialogic reading. In the intervention condition, repeating patterns were present in the text and the illustrations and the questions elicited patterning interactions. In the control condition, there were no references to patterns or mathematics more general. A repeating patterning measure (including extending, generalizing, identifying the unit) and a numerical measure (including counting, number recognition, number order) were administered at pretest and at posttest. There were significant differences between both conditions while controlling for pretest performance and receptive vocabulary in extending, but not in generalizing or identifying the unit. There were no significant transfer effects on the numerical measure. Overall, this study shows that reading picture books specially designed around patterning skills can stimulate young children's ability to extend repeating patterns. Picture books are easy to implement in several early learning environments, and are therefore a promising tool to support children's patterning ability.

Keywords: Repeating patterning, Preschool, Picture books, Early mathematics, Intervention

Counting on picture books: A systematic review of picture books in the domain of early mathematics

Presenting author: Emke Op 't Eynde, KU Leuven, Belgium
Co-authors: Fien Depaepe, Lieven Verschaffel, Joke Torbeyns

Shared book reading (SBR) refers to an activity in which the adult reads aloud a picture book to children and which often includes interactions about the picture book outside of the actual reading. In this systematic review, we analyzed the characteristics of mathematical picture books, and the frequency, quality, and effectiveness of SBR in early mathematics. Additionally, we looked at the association between the frequency, quality and effectiveness of this activity and the characteristics of the picture book, child, reader, and context. A systematic search in four databases yielded 49 articles that were eligible for inclusion. Results first showed that mathematical picture books most frequently address the area of number and operations, and contain characteristics that may both stimulate and hinder children's mathematical development. Second, the frequency of SBR was hardly studied, constraining current insights into this topic. Third, the quality of SBR was mainly studied via the number and the type of mathematical utterances made by the child and/or the reader. These mathematical utterances tend to be various in terms of both number and type, and to be associated with the characteristics of the picture book (e.g., mathematical content), the child (e.g., SES), and the reader (e.g., familiarity with the picture book). Fourth, SBR was shown effective to stimulate children's mathematical development, with hardly any studies focusing on variables that are associated with its effectiveness. We end with gaps in the available research on SBR in the domain of mathematics and offer suggestions for future research.
Keywords: Shared book reading, Picture books, Early mathematical development

Role of home environment and familial risk for reading and math difficulties on children's numeracy and literacy skills in early childhood

Presenting author: Jenni Salminen, University of Jyväskylä, Department of Teacher Education, Finland
Co-authors: Daria Khanolainen, Tuire Koponen, Minna Torppa, Marja-Kristiina Lerkkanen

This study examines the direct and indirect effects of home numeracy and literacy environment, and parental factors (parental reading and math difficulties, and parental education) on the development of their children's early numeracy and literacy skills. The 265 participating Finnish children were assessed four times between ages 2.5 and 6.5. Children's skills in counting objects, number production, number sequence knowledge, number symbol knowledge, number naming, vocabulary, print knowledge, and letter knowledge were assessed individually. Parents (N = 202) reported on their education level, learning difficulties in math and reading (familial risk, FR), and home learning environment separately for numeracy (HNE) and literacy (HLE) while their children were 2.5 years old and again while they were 5.5 years old. The results revealed both within-domain and cross-domain associations. Parents' mathematical difficulties (MD) and reading difficulties (RD) and home numeracy environment predicted children's numeracy and literacy skill development within and across domains. An evocative effect was found as well; children's skills in counting, number sequence knowledge, number symbol identification, and letter knowledge negatively predicted later home numeracy and literacy activities. There were no significant indirect effects from parents' RD, MD, or educational level on children's skills via HLE or HNE. Our study highlights that parental RD and MD, parental education, and the home learning environment form a complex pattern of associations with children's numeracy and literacy skills starting already in toddlerhood. The results speak of the importance of early identification and support, particularly for children with FR for RD or MD.
Keywords: Numeracy skills, Literacy skills, Familial risk, Home numeracy environment (HNE), Home literacy environment (HLE)

Session F3 – Symposium [09.00–10.30]

Accessible, equitable and inclusive ECEC in hybrid privatized markets: implications for organizational policy and governance

Chair: Paul Leseman, Utrecht University, the Netherlands
Discussant: Paul Leseman, Utrecht University, the Netherlands

Given that ECEC in most countries is at least partly privatized and marketized, thus hybrid, the purpose of the symposium is to explore how ECEC markets can be organized and regulated so as to maximize the accessibility, equitability and inclusiveness of ECEC for all. In hybrid systems, non-profit social enterprises, foundations and cooperatives play a critical role in this regard, and a key question is how to facilitate these organizations, but also how to make for-profit organizations more 'social'. Accepting that privatization and marketization is likely to stay, this symposium focuses on the opportunities that system hybridity may offer to serve public goals if properly governed. The symposium explores the possibilities of value-based regulation of ECEC markets at the state and at the local level, and in particular how interaction in local networks between non-profit and for-profit ECEC providers, other social services and civil society initiatives can reform the marketized local ECEC system into an inclusive social economy. The symposium includes four research-based presentations, covering England, Scotland, Germany and The Netherlands. These countries represent different ECEC systems and different approaches to ECEC governance. The presentations will address the accessibility of ECEC for remote or disadvantaged communities, the quality and inclusiveness of ECEC for these communities, the internal logics of ECEC organizations and their local network collaboration, and what can be learned from this to promote equitable and inclusive ECEC.

Keywords: ECEC, Hybrid systems, Governance, Equality, Inclusion

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Sustainability risks within the English childcare market
Presenting author: Eva Lloyd, University of East London, England

Purpose and context: Research funded by the Nuffield Foundation explored changes in the reach, social impact, financial structures, geographical distribution, and perceptions of frontline childcare managers within private childcare provision in England. Methods and data: Data came from sources in the public domain, including trade sector websites, administrative datasets, and reports and articles; from interviews and a survey of a self-selected sample of 80 nurseries; and from a financial analysis using forensic accounting methods of 9 childcare company case studies, including 5 medium-to-large for-profit and 6 not-for-profit childcare businesses. Results: The study uncovered the growing dominance of national and international for-profit-childcare companies with complex financial structures. Relying heavily on private equity investors, these companies fuel expansion through mergers and acquisitions, while carrying major debts. This trend has neither generated an increase in childcare places nor improvements in workforce pay and conditions, while in these companies parental fees remain high by OECD standards, access to children from low-income families is resisted and transparency and accountability regarding public subsidy use are lacking. The operations of not-for-profits in the English childcare sector, in contrast, promote transparency, accountability and social impact. Discussion and conclusion: The study concludes such financialisation among for-profits in the English childcare market is putting its sustainability at risk. It recommends strategies to create new forms of public-private partnerships enabling a more inclusive and higher quality ECEC system for all young children.

Keywords: ECEC, England, Private equity, Public-private partnerships

The Importance of ECEC as social infrastructure: lessons from a co-production project with remote rural and disadvantaged urban communities in Scotland

Presenting author: Ingela Naumann, University of Edinburgh, Scotland
Co-authors: Joanna Sakali

Purpose and context: The Covid-pandemic has highlighted the importance of ECEC services as social infrastructure for sustaining social and individual wellbeing in local communities. The pandemic however, also exposed the particular difficulties to develop crisis-resilient ECEC solutions in localities where there already existed considerable pre-pandemic gaps in the availability of accessible ECEC services. The presentation presents lessons from a co-production project aimed at supporting policy development and service delivery in remote rural and socio-economically disadvantaged urban communities in Scotland. Method and data: Qualitative data was gathered via interviews with parents, community group representatives and ECEC providers, and then enriched with secondary quantitative analysis from UK survey data, to produce a comprehensive picture of challenges in delivery and access to ECEC in rural and urban areas. In a second step co-production workshops with representatives from local councils, providers and community groups developed recommendations for policy and practice pathways. Results: Co-production can help articulate and reduce some of the delivery and access challenges in rural communities, particularly within the context of a fragmented and marketized ECEC system, while potentially also masking local diversity and interest conflicts. Discussion and conclusion: A preliminary conclusion is that co-production as a (local) governance strategy in the context of hybrid systems may arguably be better suited to support policy implementation and delivery pathways than traditional policy design due to containing tendencies of depoliticizing the policymaking process.

Keywords: ECEC, Scotland, Remote communities, Co-creation, Governance

Raising the pedagogical quality of ECEC in a heterogeneous and decentralized system: The case of Germany

Presenting author: Yvonne Anders, Otto-Friedrich-Universität Bamberg, Germany
Co-authors: Sabine Blaurock, Kristina Hausladen, Katrin Wolf

Purpose and context: The ECEC system in Germany is embedded into the Youth Welfare System, and may be characterized as highly heterogeneous and decentralized. The great majority of ECEC settings is publicly financed, with a great majority of providers being free, non-profit organizations such as churches or charities. In this presentation, we will present initiatives to sustain and raise pedagogical quality of ECEC in Germany and will discuss effective approaches at different organizational levels, such as individual settings, providers, communities and policy. The findings will be explored with regard the question how the organization of the system contributes to societal (in)equity. Method and data: The presentation will draw on different large and small scale datasets, such as the federal Youth Welfare statistics, the scientific evaluation of the federal initiative "language pre-schools" and monitoring data of the system. Analyses involve (multilevel) regression analyses. Individual case studies will add processual information the quantitative data. Results and discussion: Findings reveal a high variation with regard to structural quality characteristics of pre-school settings between and within federal states. This variation also reflects inequity with regard to access to high quality pre-school provision. High freedom in allocating resources to develop quality may result in a high accuracy of fit of initiatives taken with regard to specific regional needs. Distributed and informed leadership models seem to be highly relevant to sustain and develop pedagogical quality in a heterogeneous and decentralized system and to overcome segregation.

Keywords: ECEC, Germany, Decentralized system, Non-profits, Leadership

Local social economies: promoting community-oriented logics in hybrid ECEC providers

Presenting author: Bodine Romijn, Utrecht University, the Netherlands
Co-authors: Paul Leseman, Pauline Slot

Purpose and context: This presentation focuses on the internal logics of ECEC organizations in hybrid local markets and identifies how market, corporate, community and professional logics are blended, how this relates to organizations' outreach to disadvantaged communities and to the quality and inclusiveness of their practices. Method and data: Data come from a large nationally representative sample of ECEC providers and from a nation-wide survey on the early education and care policies of municipalities in The Netherlands. Using latent class analysis, we first identify different types of organizations, following an Institutional Logics Approach, and then examine in a multilevel nested design the influence of local network collaboration and value-driven network governance on how ECEC organizations' define their profile and perform. Results: Previous analyses revealed different types of ECEC organizations. ECEC organizations, both for-profit and not-for-profit, with a socially engaged mission, strong community logic and connected professionalism profile were more out-reaching to disadvantaged communities, culturally more inclusive and provided higher quality to children than other organizations. Participation in local networks seems a key factor and this will be further explored in additional analyses. Discussion and conclusion: A preliminary conclusion is that the creation of a local market driven by values, as especially represented by participating engaged non-profits and community initiatives, makes ECEC organizations, also for-profit ones, more social. Implications for the governance of hybrid ECEC systems will be discussed.

> *Keywords:* ECEC, The Netherlands, Hybrid system, Organization logics

Session F4 – Symposium [09.00–10.30]

Children's mathematizing in spontaneous play

Chair: Annerieke Boland, Hogeschool IPABO, University of applied sciences Amsterdam, the Netherlands
Discussant: Maartje Raijmakers, Free University, Amsterdam, the Netherlands

Today, there is broad interest in STEM in early childhood education. Whereas ECE-teachers generally offer activities with an explorative character for STE, early education in mathematics often consists of teacher-directed activities without a context that is personally meaningful for children. If teachers in ECE begin with formal signs and procedures without connecting them to the existing understandings of children, this can result in children adopting superficial features, unable to transform them in to a personally meaningful system (Author 2021; Lerkkanen et al. 2012, 2016). In this symposium mathematizing is considered a social-cultural phenomenon; a human activity of modeling and structuring one's world and interpreting it from a mathematical perspective (Freudenthal, 1991). This symposium shows that mathematizing is part of children's spontaneous play and discusses the importance and opportunities to build upon the funds of knowledge that children bring into school and their own ways of mathematizing their world. The first presentation shows evidence of children's spontaneous use of signs and symbols in free pretend play to indicate mathematical meaning. The second presentation goes deeper into the understanding of pretend/imaginative play and children's mathematics by teachers. The third contribution presents a design-based research in which ECE-teachers and researchers collectively developed interaction strategies for supporting children's own mathematizing in play. The researchers used detailed qualitative analyses of children's free play, that were necessary to understand children's own mathematizing. In this symposium we explore what these findings imply for future directions of research and practice of math in early childhood education.

> *Keywords:* Early childhood mathematics, Play pedagogy, Spontaneous play, Democracy, Meaning-making

Early childhood mathematics: A sense of agency?

Presenting author: Maulfry Worthington, Independent researcher (previously related to Free University in Amsterdam), United Kingdom

The aim of this study is to illuminate how democracy underpins children's sense of agency, strengthening their understandings of mathematical semiosis. It arises from recent doctoral research investigating the genesis of young children's own mathematical signs (Author 2021), and draws on cultural-historical and social-semiotic theories (e.g., van Oers, 2014; Vygotsky, 1978). In this longitudinal, ethnographic study using case studies, teachers' written observations of 3-4-year-old children's play and their graphical signs and texts were analysed through interpretive methods, aided by computer assisted qualitative data analysis software (CAQDAS). Data were gathered in a multi-cultural, inner-city nursery school in the south of England, in which democracy and freedom are highly valued, and social pretend play, graphicacy and children's mathematics are well regarded and understood. Analysis shows that learner-agency empowered children to make personal decisions and choices, to self-initiate their play, the mathematics that arose within it, and their mathematical inscriptions. The findings reveal that significantly, it is teacher-agency (Carruthers, 2021) which ensures that the agentive decisions made by children considerably enrich their mathematical understandings, and their meaningful use of signs. We conclude that the nursery's egalitarian culture empowered the children as they made meanings and communicated their mathematical thinking. Together the findings suggest a need for policy documents to democratise guidance for early childhood education, and for schools to consider the importance of democratic values in support of teacher and child-agency in mathematics. The research was guided by the ethical research principles of the Scientific and Ethical Review Board (2016), (Vrije Universiteit Amsterdam).

Keywords: Early childhood mathematics, Democracy, Teacher and child-agency, Social pretend play, Mathematical inscriptions

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English Nursery School teachers' observations and reflections on children's mathematics in imaginary play episodes

Presenting author: Elizabeth Carruthers, Bristol University, United Kingdom

This research is part of my PhD-study (Author 2022), a longitudinal, interpretative, qualitative study tracing the development of teachers' inquiries into their mathematical pedagogical practice supporting children's own mathematical graphics. The aim of this part of the study was to uncover pedagogical practice that supported children's mathematical play. The structure of the study was based on sociocultural theory (Vygotsky, 1978). Case study methodology (Stake, 2006) was used and data were collected from two English Nursery School teachers' writings of their practice. The data were analysed using grounded theory and Corbin and Strauss's (2008) coding system. Data revealed that children's own play, where the teachers encourage children to lead, enhanced their mathematical development as they were engaged in thinking further than the stated aims of the set mathematics curriculum. This is in line with Freire's (2018) stance on democratic pedagogies and freedom for individual thinking, situated within spaces that teacher's afford children in their pretend/imaginary play. Children's own mathematical play, in this study, is in contrast to the present move to 'guided play' (Skene et al. 2020) and 'playful learning' (Walsh, Mcmillan & McGuiness, 2017) where play is structured to move children's thinking towards curriculum learning goals impeding on the importance of listening to children's own thinking to develop their mathematics. In conclusion, the findings of the study suggest that child-led play should be considered as an important part of pedagogical mathematical approaches in schools. This study was approved by Bristol University Ethics Committee.

Keywords: Early childhood mathematics, Play pedagogy, Teacher observations, Democracy, Children's learning

Counting on play: mathematizing of young children in spontaneous play

Presenting author: Annerieke Boland, Hogeschool IPABO, university of applied sciences Amsterdam, the Netherlands
Co-authors: Ronald Keijzer, Eefje van der Zalm, Marjolijn Peltenburg

This research aimed at designing interaction strategies that support children's mathematical development in the context of spontaneous play. This design-question came from ECE-teachers. The research departed from a cultural-historic perspective, where play is seen as participation in cultural activities, characterized by high involvement, rules and degrees of freedom (Van Oers 2014). First, two professional learning communities (PLC's) (Engeström, 2011) of researchers and ECE-teachers developed guidelines for interactions stimulating children's mathematizing in spontaneous play. Earlier research (Author et al., 2018) has shown that complex language production can be supported in children's make-believe play when teachers focus on creating intersubjectivitity (Hakkarainen, Brédikyte, Jakkula & Munter, 2013) and sustained shared thinking (Siraj-Blatchford, 2009). Mathematizing was considered a natural human activity of structuring and interpreting one's world mathematically (Freudenthal, 1991). These three perspectives were used for collective qualitative analyses of the data, that consisted of teacher's reported experiences, video-footage of their practice and interviews. Data show that young children spontaneously mathematize in their play and that the consecutive interaction strategies of exploring, connecting and enriching (ECE) this play support and deepen children's mathematical reasoning. Second, two new PLC's designed professionalization activities to acquire these interactions. Findings suggest that education of teachers should prioritise recognition of children's own mathematizing. A focus on 'conceptual goals' in mathematic development appeared helpful for teachers to flexibly respond to children's ideas. The project resulted in guidelines and activities for professionalization shared on a website. EECERA-ethical code for research in Early Childhood Education was followed.

Keywords: Early childhood mathematics, Play pedagogy, Interaction strategies, Sustained-shared thinking, Intersubjectivity

Keynote II – Prof. dr. Dorthe Bleses [11.00–12.00]

From impact studies to sustainable educational practices: implementation of evidence-based interventions at scale

I will present findings from a series of large-scale randomized control trials of a low-cost school readiness intervention We learn together targeting children aged 1 to 5 years. The intervention is designed to elevate the quality of instruction and thus opportunities for learning in early childhood education (ECE) programs. Notably, the intervention does not increase the amount of time children spent in childcare or teacher-child ratio, but provide teachers with tools —sequence and scope, scaffolding strategies, and materials—to be more explicit and intentional in their interactions with children. Besides main effects and effects for subgroups of children, I will present findings related to the intervention fidelity and factors predicting fidelity and the implications for scaling up of interventions we identified. Finally, I will present a new partnership, which makes the intervention available at-scale and–based on an implementation framework–offers support to municipalities to maintain high quality during real-life implementation of the intervention.

Session G1 – Paper session [13.00–14.30]

Two Decades of Research on children's Creativity Development during Primary Years: A Systematic Literature Review with a focus on Tasks

Presenting author: Olga Potters, Research Institute Child Development and Education, University of Amsterdam, the Netherlands
Co-authors: Tessa van Schijndel, Joke Voogt

The systematic literature review aimed to gain more insight into research on the development of children's creativity in primary education. The review focuses on the task level and introduces a taxonomy to map creativity tasks. The taxonomy is based on a broad conceptualization of creativity, and differentiates between open- and close- ended, and integrating and fragmenting creativity tasks. Besides analyzing tasks by means of the taxonomy, in the current review we also analyzed tasks in terms of the used domains of the stimulus and response of the tasks. A total of 52 studies published in the last 20 years were systematically analyzed. The body of research demonstrated a varied and fragmented picture concerning the conceptualization and measurement of creativity and its subdimensions. Open-ended integrating and open-ended fragmenting tasks were frequently used, close-ended tasks not. The results showed a general increase in creativity across all grade-groups, with plateaus in grade 4 and grade 6. Furthermore, a plateau was found in grade 1-3 and 4-6 for the originality subdimension, and in grade 4-6 for the use of a verbal stimulus of the task. The taxonomy of creativity tasks that has been introduced in this review can be useful for both clarifying discussions in the creativity research discourse and designing creativity activities for the educational practice.

Keywords: Creativity development children, Primary education, Measuring creativity, Taxonomy of creativity tasks, Stimulus domain, Response domain

The role of children's Creativity, Well Being and Kindergartens environment Quality in their Literacy Achievements

Presenting author: Edna Orr, Gordon College of Education, Israel
Co-authors: G. Kashy-Rosenbaum, V. Vaknin-Nusbaum

Aims: Recent studies have shown that creativity benefits academic outcomes. This trajectory is demonstrated by referring to Montessori pedagogy, in which children are free to choose their learning activities from a specific set of sensory and self-corrective materials without any external feedback. Notably, Montessori schoolchildren have been found to outperform their peers from traditional schools in both academic outcomes and creativity. This study aims to answer the question of whether and how the individual creativity and well-being of children from traditional kindergartens and the quality of their educational settings play a role in their literacy achievements. Methods: The study participants comprised 120 children from 12 kindergartens. The researchers observed each child during play with several objects for assessing creativity and well-being through the storytelling complexity and affect expressed. An additional task was given to explore the three dimensions of divergent thinking: fluency, flexibility, and originality. The ECERC (Harms et al., 2005) assesses the kindergarten activities' quality. Literacy achievements were evaluated through a battery of tasks that examined vocabulary, morphology, phonology, and letter recognition. Results: The data collection phase is currently at its peak. However, preliminary analysis indicated that kindergarten quality contributes to children's well-being. Creativity and well-being are factors that play key roles in children's literacy achievements. Discussion: Traditional kindergartens can contribute to children's well-being by offering high-quality environments, as these constitute one of the ways through which creativity and learning can be improved.

Keywords: Creativity, Literacy, Well-being, Kindergarten environment, Traditional kindergarten

Universiteit Utrecht

The Development of Divergent Thinking in 4- to 6-Year-Old Children

Presenting author: Honghong Bai, Tsinghua University, China; Paul Leseman, Utrecht University, the Netherlands
Co-authors: Hanna Mulder, Mirjam Moerbeek, Evelyn Kroesbergen

The present study investigated the development of divergent thinking (DT) in early childhood. We followed 107 4-year-olds for 1.5 years. Children's DT was assessed with the Alternative Uses Task (AUT) every 6 months, four times in total. Within the AUT, children were asked to generate as many unusual uses as possible for common objects while explain how they came up with these uses. Based on the generated uses, two product measures were computed: fluency and originality; and by coding children's explanations, two process measures were computed: memory retrieval and mental operations. Two series of multivariate multilevel regressions were respectively conducted to examine the changes over ages in the product measures (namely fluency and originality) and in the process measures (namely memory retrieval and mental operations) of children's DT. Results of these analyses revealed that there was a linear growth in fluency and originality with age. In addition, the number of references children made in their explanations to the DT processes memory retrieval and mental operations also increased with age, although with slightly different patterns. These findings contribute to the evidence regarding the development of DT in early childhood and provide a first glance at the development of the thinking processes underlying DT.

Keywords: Divergent thinking, Developmental trajectory, Thinking process, Young children, Alternative Use Task

Session G2 – Paper session [13.00–14.30]

Any questions? Explaining differences in the informedness within German childcare centres during the COVID-19 pandemic 2020

Presenting author: Janette Buchmann, Deutsches Jugendinstitut e.V. (DJI), Germany
Co-authors: Michael Müller, Diana Schacht, Lisa Ulrich

High quality early childhood education and care (ECEC) has been shown to have long-lasting educational benefits for children and to promote educational equality. When the COVID-19 pandemic affected Germany in 2020, informing the staff in childcare centres about health-related measures was a core requisite of providing high quality ECEC. In this context, our analysis addresses factors that contribute to explaining variations in the informedness of directors and pedagogical staff in German childcare centres, distinguishing between (1) the individual, (2) the institutional and (3) the federal state level. The relevance of informedness is contextualized by an established model of ECEC quality and the determining factors are theoretically derived by the multilevel and multiactor ECEC system. Until today, empirical evidence for the importance of each level for the informedness within childcare centres is largely lacking. We draw on cross-sectional data from the ERiK-Surveys 2020 using the subsamples of directors and pedagogical staff in childcare centres. We run (multilevel) regression models and decomposition analyses for both populations. Preliminary results indicate for both populations that (1) individual and (2) institutional level factors account primarily for the explained variance in informedness. The (3) federal states play a minor role for explaining the informedness in childcare centres. In summary, the empirical results demonstrate the relevance of factors at each level of the multilevel ECEC-system to informedness and suggest further policy pathways to improve ECEC quality and the associated promotion of educational equality.

Keywords: ECEC, COVID-19 pandemic, Informedness, Inequality

"We are not the government – but we represent its regulations" Reported problems of ECEC centre managers in the Covid-19 pandemic in Germany

Presenting author: Sina Fackler, German Youth Institute (Deutsches Jugendinstitut / DJI), Germany
Co-authors: Franz Neuberger, Mariana Grgic, Sina Fackler, Bernhard Kalicki, Susanne Kuger

Objective: The paper provides a detailed insight into pandemic-related problems faced by early childhood education and care (ECEC) centre managers in Germany. Background: In March 2020, the COVID-19 pandemic caused a general lockdown in Germany that suddenly affected the routines of families, children, ECEC centres and pedagogical staff. Over the following months, centre managers faced different challenges and expectations, like the implementation of new hygiene and protection measures, COVID-19 infections within the centre, reduced opening hours or limited staff availability. Method: Based on a survey among 2.600 ECEC managers, collected between October 2020 and June 2021, we show which problems are most frequently mentioned by centre managers. In further steps, we use multivariate regression analyses to analyse the extent to which certain problems a) are associated with certain centre characteristics (i.e. SES, centre size) and b) which of these problems are most frequently associated with general management stress. Results: Our results show that the reported problems were mainly associated with the SES of the children within the centre and the implemented restricted access regulations. Detailed analysis showed that in particular contact with parents, and in this case the selection of the children who are eligible for the use of ECEC services, was perceived as particularly stressful. Conclusion: While the implementation of the hygiene measures was only rarely reported as problematic, the implementation of the often unclear access restrictions was described as problematic in particular. We recommend using very simple, uniform and clearly defined rules here in the future.

Keywords: Early Childhood Education and Care, Germany, ECEC Leadership, Covid-19 Pandemic, Governance

Pandemic Homeschooling Phases from the Perspective of School Beginners. Findings from a Qualitative Study in Germany

Presenting author: Melanie Kubandt, University of Vechta, Germany
Co-authors: Birgit Hüpping, Mirja Kekeritz

Based on a qualitative study in a primary school class in southern Germany, this paper focuses on the social practice of changing primary school teaching in times of the Covid 19 pandemic. The starting point is the thesis that children are actively involved in the (re)production of school practices. One of the central research questions of the qualitative study "Perspectives of school beginners on the (changed) everyday school life in the alternation of attendance and homeschooling phases in the context of the Corona pandemic" was therefore: How are practices of school learning taken up, translated and applied by children in the family environment of homeschooling and how does their meaning shift - through institutional, school-based access - in the family? The empirical data is based on 10 guided partner interviews, questionnaires, children's drawings and non-reactive audio statements. These data were analyzed in a circular research process based on grounded theory (Glaser/Strauss 1998) and segment analysis (Kruse 2014). The presented results shed light on the extent to which and the ways in which the pupils link learning in homeschooling with creative opportunities and their own learning rhythms, how they experience the pandemic-related stresses and what coping strategies they develop for themselves.

Keywords: Covid-19, Homeschooling, Primary school children, Coping strategies, Agency

Language development and fulfilment of primary school requirements during the pandemic: Who are the most vulnerable children?

Presenting author: Yvonne Anders, Otto-Friedrich-University Bamberg, Germany
Co-authors: Elisa Oppermann, Katrin Wolf, Sabine Blaurock, Theresia Hummel, Iris Wortmann

The Covid-19 pandemic and the measures taken to control it, such as social distancing and (pre-)school closures have an impact on families and children's well-being. Potential pandemic stressors for children are the lack of contact to peers, loneliness etc. This longitudinal study investigates children's development between summer 2019 and winter 2021/22. The children were in preschool at the first measurement point and in grade 1, 2 or 3 at the second measurement point. Parents were asked to rate the language skills of their child as well as how well it fulfills primary school requirements. Parents further gave information on background characteristics, the home learning environment (HLE) and parental social support. We investigated how pandemic stressors, parental social support, the quality of the HLE as well as the coping with home-schooling impact both developmental areas. The study draws on 227 families and children. Regression-type analyses show that – controlling for background characteristics – pandemic stressors, the quality of HLE, and the coping with home-schooling influence children's language development, whereas parental social support does not. With regard to the current fulfillment of primary school requirements, the main predictor is coping with home-schooling during lockdown. The most vulnerable groups of children, such as low SES children, have suffered more in their transition to and coping with early primary school than other groups of children. The findings point to the need to support children and families to compensate for pandemic-related disadvantages. Further analyses will explore the potential protective role of a high quality preschool setting.

Keywords: Covid-19, Home schooling, Language development, Primary school, Preschool quality

Session G3 – Symposium [13.00–14.30]

Home-based childcare: a solution for creating a more sustainable ECEC system?

Chair: Paul Leseman, Utrecht University, the Netherlands
Discussant: Edward Melhuish, University of Oxford, United Kingdom

Although enrollment in center-based ECEC is high in most countries, a large share of parents choose to use home-based care as this may meet their preferences and needs better. Home-based care is characterized by small groups with one caregiver, so favourable ratios and high caregiver stability. Moreover, home-based care is more flexible in meeting parents' practical needs as well as their preferences in parenting practices. At the same time, caregivers in home-based care often lack official training and receive limited professional development. This raises the question whether home-based care can provide the quality needed to benefit children's development, especially for children who need this the most. This symposium brings together papers from three different countries, Denmark, Flanders-Belgium, and the Netherlands, with different systems and regulations for home-based care. In all countries home-based care is part of the official ECEC system and subject to national quality regulations. However, the countries differ in the extent to which home-based care is perceived as a 'professional' sector. The results from Flanders-Belgium show that higher levels of pre-service educational and supervision predicted process quality. The paper from the Netherlands highlights the strong variability in quality with findings suggesting selection effects based on parents' background. Finally, the findings from a RCT study in Denmark illustrates the potential of a curriculum-based intervention for higher quality and positive child outcomes. The symposium will address which avenues appear promising to raise quality of home-based care so it can develop into a viable alternative within a sustainable ECEC system.

Keywords: Home-based, Childcare, Quality, Professionalism, Equity

Process quality in home-based childcare: what matters?

Presenting author: Pauline Slot, Utrecht University, the Netherlands
Co-authors: Michel Vandenbroeck, Hester Hulpia

Child care quality in general, and caregiver-child interactions in particular, are salient predictors of children's outcomes. While the importance of process quality is well known, the complex relations between structural quality and process quality are far less researched in home-based childcare, compared to centre-based childcare. Flanders shows unique features to do so, considering its high enrolment rates of the youngest children and its large share of licenced home-based childcare. More than a third of children enrolled in ECEC attends home-based childcare. We studied different structural characteristics and the emotional and educational process quality in 200 caregivers in Flanders, Belgium, using the CLASS Infant and CLASS Toddler. The results revealed mid- to high levels of emotional quality, but lower support of children's learning. In addition, the variation was large across caregivers, indicating that some caregivers provide overall low quality. Also, emotional and educational quality appeared lowest during care routines, such as mealtime, and highest during guided play situations. While structural features partly explained variation in process quality, it is hardly possible to attribute this to single variables. However, some structural features seem to matter more than others. Pre-service training and supervision appeared important, while group size and years of work experience were not. Some differential patterns of associations were found for the licensed and affiliated caregivers. Taken together, the findings highlight important implications for improving the quality of care.

Keywords: Structural characteristics, Process quality, Home-based, Activity settings

Quality of home-based care in the Netherlands: large variation and selection effects

Presenting author: Pauline Slot, Utrecht University, the Netherlands; Paul Leseman, Utrecht University, the Netherlands
Co-authors: IJsbrand Jepma, Paulien Muller, Bodine Romijn, Celeste Bekkering, Paul Leseman

In the Netherlands about 14% of the children in ECEC are enrolled in home-based childcare. Although there are national quality regulations for home-based care, these standards are mostly less strict compared to center-based care. Questions have been raised on the process quality provided to children, especially children from disadvantaged backgrounds in view of equity. The current study used data of 137 caregivers from a national quality monitoring study. Process quality was assessed with the CLASS (infant, toddler, and pre-k depending on the age range of the children) and the FCCERS and structural background characteristics were collected through interviews with the caregivers. The results showed adequate overall quality, mid to high emotional quality and lower educational quality, albeit with large variation for all measures. Higher educational qualifications and smaller group size were related to higher process quality. Also, process quality was lower in groups with more children of low SES parents. Moreover, quality was higher when caregivers reported a stronger relationship with the parents and more parental influence on caregiving practices. Finally, caregivers' profiles appeared important too. When caregivers profiled their services as inclusive, flexible and service-oriented towards parents' needs, their quality was rated lower. Caregivers who had a small-scale and strong emotional-security focus provided higher quality. The results reveal selection tendencies of parents' choices and influence, and in caregivers's profile of provided care as related to the quality of care. This has implications for the ECEC system as a whole and puts equity under pressure.

Keywords: Structural characteristics, Process quality, Selection effects, Equity

Implementing a 20-week curriculum in home-based care: effects on teacher practices and child outcomes

Presenting author: Dorthe Bleses, Aarhus University, Denmark
Co-authors: Peter Jensen, Anders Højen, Marinka Willemsen, Pauline Slot, Laura Justice

In Denmark home-based care is an important part of the ECEC system and in some municipalities it is the only available care for infants and toddlers, so it is essential to gain more insights in the quality of care. Individual teachers are organized in larger units with typically five to six teachers supervised by a head teacher (often with a BA degree). The present study reports on an experimental trial of an intervention supporting teachers to be more explicit and intentional in their interactions with young children. In a 2-day workshop, teachers were introduced to the intervention "We learn together", which has a two-fold scope of instruction targeting language and math skills that are sequenced over the 20-week curriculum period (effectively implemented over a 7-month period because of various holidays). The suggested dosage of participation for individual children per week was two large-group and two small-group activities and one individual conversation. The sample included 391 teachers (n=299 intervention, and n=99 control) and 817 infants and toddlers (n=594 intervention and n=223 control). Results revealed generally high social validity of the intervention. Fildelity measures show that home-based teachers implemented more small-group activities and had more conversations with individual children. Also, teachers reported an increase in the provision of counting and math activities. Moreover, there were positive effects on children's language and math skills. The overall emotional and educational quality and variation in quality was comparable to Flanders and the Netherlands. Implications for improving the quality of home-based care will be discussed.

Keywords: RCT, Quality, Home-based, Language and math skills

Session G4 – Poster session [13.00–14.30]

Perception of the kindergarten teacher-tutor role in the online training of preservice teachers during the covid-19, from the perspective of preservice teachers

Presenting author: Merav Aizenberg, Achva College, Israel
Co-authors: Gila Zilka

Practical experience is an important link between educational theory and practice. Students are exposed to educational models and practices. In this study, we examine the perception of the role of the coaching kindergarten teacher in the process of integrating and coaching students at the beginning of their practicum in kindergarten, during the corona period, from the perspective of the students. The study involved 31 early childhood education students. They started their field training in the kindergartens during the corona epidemic. The students were asked to complete feedback forms that served as the database in this study. The analysis of the data revealed a division of the students into three types: (a) containment and emotional support, (b) guidance and professional support, and (c) a perception of the complexity of the role of the kindergarten teacher, together with a perception of the kindergarten teacher as inspiring and modeling. Over half the students felt that they experienced containment and emotional support, and received guidance and professional support. Most of the students perceived the coaching kindergarten teacher as a professional figure, half of them perceiving her as a model and as inspiring. Note that the study was conducted during the corona epidemic, and it is possible that some of the kindergarten teachers, who were unable to provide emotional support and professional guidance to the students, had a difficult time coping during the crisis with the uncertainty and the need to create an educational routine.

Keywords: Teaching practice, Corona (COVID-19), Practical experience, Digital readiness (e-readiness), Kindergartens

Interaction quality and child wellbeing in German childcare

Presenting author: Johanna Lieb, University of Konstanz, Thurgau University for Teacher Education, Germany, Switzerland
Co-authors: Sonja Perren

Previous research shows that caregiver-child interactions have a direct effect on the cognitive and social-emotional development of children. Little research, however, has looked into their effect on children's wellbeing. To explore this relationship, we analyzed data from an ongoing intervention study that evaluates the effect of web-mediated training on the quality of caregiver-child interactions in Germany. Caregivers participated in an online course on effective caregiver-child interactions for a duration of approximately 8 months. Before, immediately after, and 6 months after the training, interaction quality was assessed with the classroom assessment scoring system (CLASS) Toddler. Children's wellbeing in childcare was assessed with an online questionnaire answered by parents and caregivers at all three measurement points. Data collection for the individual childcare groups started between October 2020 and March 2021. Data collection for the third measurement point is currently still ongoing and will be completed by the time of the conference. We expect a sample of 108 children (nfemale=51; Mage=37.11 months, SDage=17.20 months). To analyze the data we will compute bivariate latent change score models, for parent and caregiver questionnaires separately. This study aims to point out ways to increase child wellbeing in childcare and could indicate if high-quality caregiver-child interactions could be a suitable target for effective and sustainable interventions. Since the data for this study were collected during the ongoing COVID-19 pandemic, they indicate possible courses for action to improve child wellbeing during these difficult times.

Keywords: Childcare, Child wellbeing, Caregiver-child interactions, CLASS Toddler, Latent change score models

"When I play, I feel really good": Development and validation of a children's questionnaire to assess children's playfulness in self-assessment between the ages of 3 and 8

Presenting author: Isabelle Duss, Marie Meierhofer Children's Institute, Associated Institute of the University of Zurich, Switzerland
Co-authors: Corina Wustmann Seiler, Patricia Lannen

Playfulness is understood as the ability, willingness and joy of children to engage in play and describes the quality of children's play. Until now, children's playfulness has been assessed almost exclusively by parents or professionals reporting on children using Barnett's (1991a) Children's Playfulness Scale (CPS) or by external observation using Skard and Bundy's (2011) Test of Playfulness (ToP). Only in the study by Fink and colleagues (2020) were the children directly questioned. The following research question is at the centre of this article: How can playfulness of children between the ages of three and eight be validly measured in self-assessment? A total of 565 children (46% girls) from 34 daycare groups, 43 kindergartens and 4 special education schools between the ages of 3 and 8 years (M=5.52 years, SD=1.14 years) were assessed. The survey was based on the CPS by Barnett (1991) using 15 items spread over 5 dimensions and a two-stage answer format with two response options each (four in total possible answers). Preliminary results show that the children's playfulness can also be validly and reliably captured in the children's self-assessment. Using confirmatory factor analysis, it was possible to model a latent factor playfulness based on the five dimensions of the CPS, which fits the data well ($\chi 2$ [5] = 6.16, p = .291, CFI = .997; RMSEA = .023; SRMR = .016). This study provides evidence that children ages three and up are able to provide information about their own playfulness.

Keywords: Playfulness, Play, Child, Self-assessment, Validation

Theory of Mind and Code-Switching Behavior in Dual Language Learning Preschoolers

Presenting author: Leila Teresa Schächinger Tenés, Department of Psychology, Switzerland
Co-authors: J. C. Weiner, A. Grob, R. K. Segerer

Code-switching represents the switching back and forth between languages and is frequently observed among dual language learners already at preschool age. For comprehensible communication, dual language learners constantly manage language use according to situational adequacy, and if necessary, switch between languages. Code-switching is supposedly not only influenced by dual language competence, but also by cognitive abilities. However, it remains unclear whether a similar relationship also exists for preschoolers' socio-cognitive abilities, like Theory of Mind (ToM), and whether the language context (i.e., single language, dual language, and dense code-switching context) plays a substantial role. This study aims to enlighten how the influence of dual language competence on preschoolers' code-switching is moderated by ToM-abilities and different language contexts. The examined study sample included 122 preschoolers (aged 32 to 78 months) participating in a transnational study in Switzerland and Germany acquiring either the societal language German or French and one of the heritage languages Italian or Turkish. Parents reported on preschoolers' code-switching and experienced language context. ToM-abilities and dual language competences were measured with standardized tests. Findings reveal an influence of dual language competence especially for switches into the societal language. Further, the heritage language effect is moderated by ToM-abilities. The influence of the heritage language on preschoolers' code-switching decreases with higher ToM. Language contexts revealed no substantial effects. These findings suggest differential usage of code-switching in dual language learning preschoolers and suggest that code-switching might not only be influenced by linguistic competence but also represent a behavioral phenomenon specific to underlying ToM-abilities.

Keywords: Code-switching, Dual language learning, Language context, Preschoolers, Theory of mind

Dual language learners' questions and teacher responses in small-group shared reading in preschool

Presenting author: Svitlana Kucherenko, University of Oslo, Norway
Co-authors: Veslemøy Rydland, Vibeke Grøver

This study aims to investigate relations between dual language learners' questions and preschool teachers' responses in the context of small-group shared reading in preschool. Participants were 235 young dual language learners and 60 teachers from highly multiethnic preschool classrooms in Norway. Children's questions were coded based on the type of information they sought, ranging from fact-seeking to explanation-seeking. Teachers' responses were coded based on their quality. We will use sequential analysis to show how prevalent different types of children's and teacher responses are in the context of shared reading and to what extent the quality of teacher responses depended on the type of questions children asked. Findings will provide more knowledge on how preschool teachers can use dual language learners' questions to engage them in the explanatory and extended talk about the topics in the book they genuinely care about, facilitating their language learning and comprehension skills.

Keywords: Teacher-child interaction, Shared reading, Children's questions, Dual-language learners, Preschool teachers

Coaching processes for language fostering in the childcare center

Presenting author: Karina Schröder, University of Teacher Education St.Gallen, Switzerland
Co-authors: Franziska Vogt

Language support embedded in everyday interactions requires professionalization of the educators in childcare centers, as it relies on situational, adaptive, and targeted language support strategies (Masson & Bertin, 2021). In the context within the project promoting language fostering for second language learners in

childcare centers, experts coach early childhood educators to support their professional competencies. The experts lead an intense coaching process with regular sessions every two weeks over a whole year. Coaching has been proven to be an effective format of professionalization (Brunsek et al., 2020). However, only little is known about the characteristics relevant for successful coaching processes, in general, and the role of motivation in particular. It is hypothesized that self-determination, including efficiency, affiliation, and autonomy (Deci & Ryan 2000), is crucial for acquiring language fostering competencies. The study seeks to explore how motivation for language support is created in coaching conversations. To this aim, the project uses a qualitative design. Data includes problem-centered interviews (Witzel, 2000) and audio recordings of 2-4 coaching sessions spread across different times during the whole coaching process. The recordings are analyzed using interaction analysis (Krummheuer, 2011). The potential of coaching for professionalization in early childhood education and for equipping educators with the skills to employ language support strategies embedded in everyday interactions will be discussed.

Keywords: Further training, Coaching, Motivation, Professionalization, Language support integrated into everyday interactions

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The Relation between Parental Beliefs regarding Motor Development, and Choices for Settings and Practices across three Context-specific Samples

Presenting author: Osnat Atun-Einy, University of Haifa, Israel
Co-authors: Ora Oudgenoeg-Paz, Saskia van Schaik

Daily practices such as specific handling and positioning have effect on Infant motor development (Lobo and Galloway, 2012). According to the developmental niche, these practices might reflect specific parental beliefs (Harkness & Super, 2020). However, the belief-practice relation is not always direct and can be mediated by child and parent characteristics, situational factors and cultural settings. To increase understanding of this relation we extended previous work showing relations between beliefs and practices in a sample of middle-class Israeli and Dutch mothers by studying this link in two specific contexts. In the first study we included 83 Druze-Israeli and 83 Jewish-Israeli mothers representing a minority and majority group in Israel respectively. In the second study we included 75 Dutch and 111 Israeli parents of preterm-born infants. All parents filled in the Parental Beliefs about Motor Development and the Motor Habits questionnaires (Atun-Einy et al., 2017). For both samples, structural equation model showed various relations between beliefs and practices, that varied between contexts. Findings demonstrate that beliefs are at least to a certain extent related to practices. However, in line with Harkness and Super's (2020) heuristic model it is mediated by specific characteristics of the settings and the infant. This stress the importance of deeply understanding parental beliefs and their possible relation with behavior in motor interventions.

Keywords: Infancy, Motor development, Parental beliefs, Parental practices, Minority group, Prematurity

Session H1 – Paper session [15.00–16.30]

Self-Regulation Development in At-Risk Families: The Relative Importance of Familial Resources

Presenting author: Patsawee Rodcharoen, University of Teacher Education in Special Needs Zurich, Schweiz
Co-authors: Niamh Oeri, Claudia Roebers, Minna Tormänen, Peter Klaver, Andrea Lanfranchi

The ability to regulate one's behavior marks an essential developmental milestone in early child development. Behavioral self-regulation is crucial for children to adapt to the kindergarten setting and was found to be a strong indicator for later academic achievement. However, in the context of adversity, the development of behavioral self-regulation is not yet well understood. Whereas many studies have addressed the effect of the social background such as socioeconomic status (SES), ethnic background, or maternal education on

behavioral self-regulation, the effect of social resources has been neglected. Understanding the relative importance of these different resources is a crucial step to understand how behavioral self-regulation develops under adverse conditions. The present study investigates the relative importance of familial resources, namely economic, cultural, and social resources on behavioral self-regulation (HTKS) in a high-risk sample of 261 children from 248 families in a high-income country. The hierarchical regression analysis showed that every family resource is positively related to behavioral self-regulation in kindergarten. The full-model revealed maternal education and received help in child-rearing were the strongest predictors for behavioral self-regulation in kindergarten. To sum up, considering different types of resources in one comprehensive analysis, suggest that under adverse circumstances maternal education and the received help seem to play an essential role in the development of behavioral self-regulation.

Keywords: Behavioral Self-Regulation, Social Background, At-risk Children, Educational Inequalities, Resources

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The last will be first? Individual-level stability of school readiness

Presenting author: Erica Kamphorst, University of Groningen, the Netherlands;
Co-authors: Marja Cantell, Gerda van der Veer, Alexander Minnaert, Suzanne Houwen

Ensuring that each child is prepared to thrive in school (i.e., school readiness) is an important goal for early childhood policy makers (UNESCO, 2016). This goal requires the ability to discern a variable range of pathways during early childhood. To this end, we studied individual-level stability of school readiness skills, comparing a categorical- to a continuous approach. In this longitudinal study, a community sample of 90 children (46% girls; M = 40.9 months, SD = 3.5 months) were examined at 2 time-points with a six-month interval on school readiness measures of executive functions, language/emergent literacy, motor skills, and socioemotional behavior. For the categorical approach, children's trajectories were categorized into one of the following groups: consistent typically developing, persistent atypically, improvers, and decliners. Additionally, continuous stability was examined by computing the Reliable Change Index. The proportion of children who were in one of the stable subgroups ranged from 77 to 95% (categorical approach), or from 77 to 90% (continuous approach). The categorical and continuous approaches imply more similar results in terms of stability than instability. Also, a greater extent of stability in age-typical than atypical school readiness development was found. Since a considerable number of initially atypical children (more than half) seemed to be able to catch up to their age-typical peers, it portrays a hopeful course of early childhood school readiness. From the perspective of early identification, it is advised to use a combination of a categorical and a continuous approach, to support the robustness of school readiness trajectory findings.

Keywords: Stability, School readiness, Early childhood, Reliable change index

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Sensitivity to parenting in early childhood: The interactive effects of parenting and a child's sensitivity on executive functions

Presenting author: Niamh Oeri, Institute for Psychology I University of Bern, Switzerland
Co-authors: Michael Pluess, Nora Kunz

The quality of parental behavior has been considered an essential factor in explaining individual differences in executive functions. However, a growing body of research suggests that some children are more susceptible to positive and negative parenting qualities. The present study examined the interactional effects of parenting and a child's sensitivity on executive functions. In a sample of N = 183 children (mean age: 6.2 years), two different EF tasks were administered; a global executive function task and a specific executive functions task capturing attentional focus. The children's parents filled out a questionnaire on their parenting (i.e., two sub-scales of the Alabama Parenting Questionnaire: involved parenting and corporal punishment) and their child's sensitivity (i.e., Highly Sensitive Child Scale). In line with the environmental sensitivity framework (Pluess, 2015), results showed that executive functions performance is higher for those sensitive

children whose parents reported involved parenting, while it is substantially lower for sensitive children whose parents reported the use of corporal punishment. No such interactional effects were found for less sensitive children. The results suggest that executive functions may not only be shaped by parenting behavior but that for some children, the quality of parent behavior may have a greater effect on executive functions than for others.

Keywords: Executive functions, Environmental sensitivity, Parenting, Cognitive development

Session H2 – Paper session [15.00–16.30]

Is it all just hollow words? Practitioners' view on research in early childhood education and care
Presenting author: Kristine Blatter, German Youth Institute, Germany
Co-authors: Regine Schelle, Stefan Michl

How is research knowledge transferred successfully to various stakeholders and then incorporated into their actions? Amongst other disciplines, research in early childhood education and care (ECEC) is increasingly addressing this question. In spite of a growing interest towards knowledge mobilisation, only little evidence exists up-to-date. This research gap motivated our present research. The ECEC system is a complex network of various stakeholders shaped by reciprocal interactions. According to current systemic knowledge mobilisation frameworks from educational research (e. g. Cooper et al., 2020; Farley-Ripple et al., 2018) investigating knowledge mobilisation should therefore address perspectives of all the different parties involved. To this end, our study encompasses expert interviews with scientists as well as group discussions with ECEC practitioners. In the present paper we focus solely on the latter as the expert interviews are still in progress (end of data collection is in May 2022). The aim is to analyse attitudes towards research knowledge and its mobilisation as well as respective experiences. In this context, we expect to identify both facilitators and obstacles for knowledge mobilisation in the ECEC sector. Group discussions with practitioners took place in N = 5 different ECEC settings in October and November 2021. First analyses show that practitioners perceive research as a burden rather than an asset. The practitioners' statements also convey a general lack of acknowledgement as well as a considerable research to practice gap. At the conference further results will be presented and discussed in light of the current debate on knowledge mobilisation.

Keywords: Knowledge mobilisation, Knowledge transfer, Early childhood education and care, Research to practice gap

Trends in Scandinavian ECEC Research 2006-2019 - Stability and Changes in Topics and Methodology
Presenting author: : Thomas Moser, University of Stavanger, Norge
Co-authors: May Irene Furenes, Elin Reikerås, Elaine Munthe

ECEC research publications in Scandinavian countries has been systematically reviewed since 2006 in a collaborative project funded by the Swedish National Agency for Education and the Norwegian Directorate for the Norwegian Education and Training. As a result of these annual reviews, The Nordic Base of Early Childhood Education and Care (NB-ECEC, https://www.nb-ecec.org/en), administered by the Danish Evaluation Institute, brings together quality-assessed Scandinavian research in 0-6-year-old children in day care and makes it accessible for everyone free of charge. NB-ECEC consists of 3969 items providing, research-based knowledge for the international community of researchers, as well as for teacher educators, students, professionals within ECEC, authorities and policy makers. The current scoping review followed the guidelines of the Cochran organisation and used the EPPI-Reviewer Web 4 software. Main findings to be presented and discussed in this contribution are: The research topics "Pedagogical practices" and "Teaching and learning" increased the most over the last eight years. The proportion of publications that have been assessed as «low quality» has fallen considerably from 2016 (59%) to 2020 (23%), yet almost 25% of the publications from 2019 still do not meet the most basic requirements for good research reporting. Among studies based on

qualitative data, 33% (2018) and 26% (2019) of publications were assessed as low quality, respectively, while the respective figures for quantitative studies are 20% and 21%. While the proportion of English-language publications was <20% before 2010, it has increased to up to 60% after 2015. There still is a large dominance of research that has a descriptive approach (> 66% of publications in 2018 and 2019) and that is based solely on qualitative data (about 75% of publications in 2018 and 2019). These -and subordinate- findings will be discussed and reflected in the presentation, considering future challenges for Scandinavian ECEC and ECEC-research. Furthermore, the limitations of long-term research reviews in terms of identifying trends in research, i.e., risk for misinterpretations, will be addressed.

Keywords: Scandinavian, ECEC Research, Trends 2006-2019, Research review

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How do children and parents cope with children's first entrance to institutional childcare?
Presenting author: Lars Burghardt, University of Bamberg, Germany
Co-authors: Elisa Oppermann

In the year 2020 35% of under-three-year old children attended institutional childcare in Germany (statistisches Bundesamt, 2020). Even though the numbers have tripled in the last 15 years, little is known about how well children and parents cope with the entry in institutional childcare. The transition into educational institutions is discussed in the context of the transition approach (Balduzzi et al., 2019), which combines assumptions from the ecosystemic approach (Bronfenbrenner & Morris, 2006), attachment theory (Grossmann & Grossmann, 2003), and research on stressors like temperament (Putnam, 2002). This study focuses on the question of how easy it was for both children and parents to cope with the entry in institutional childcare and whether associations with characteristics of the child or the parents can be identified. Data stems from the German National Educational Panel Study (NEPS, n= 1,358 coping of children; n= 1,360 coping of parents). Regression analysis were used to identify child and parent characteristics that were associated with children's and parents' coping with the entry into institutional childcare. Descriptive results sows that few parents reported difficult transitions to institutional childcare for themselves or their children. Regression results showed that the children's coping was associated with different characteristics than parents' coping. For example, children's age, gender, and temperament were significant in determining how easily children transitioned. Characteristics such as educational status, migration background or parental expectations were relevant for the parents' coping. Results illustrate that individual characteristics should be taken into account in the pedagogical arrangement of the transition.

Keywords: Transition, ECEC, Coping, Temperament

Session H3 – Symposium [15.00–16.30]

Early Science and Technology education – promoting inquiry and problem-solving practices in diverse contexts
Chair: Ornit Spektor-Levy, Faculty of Education, Bar Ilan University, Israel
Discussant: Ornit Spektor-Levy, Faculty of Education, Bar Ilan University, Israel

Scholarly consensus concurs that preschool-level science and technology education affects children's curiosity and their desire to engage in these areas. These factors predict the likelihood of engaging in science and technology in both the short and long terms. Studies in literature have indicated that young children possess cognitive abilities to understand abstract concepts and implement inquiry and problem-solving practices. From this perspective, children understand the world and explain it through intuitive theories that they modify in light of new, cumulative knowledge. Other studies have argued that children have difficulty spontaneously acquiring inquiry and problem-solving practices without guidance and explicit instruction. Accordingly, in this symposium, we will present four studies investigating these processes among 5–10 year-olds. The first study explored the contribution of conceptual knowledge, domain-general, and domain-

specific skills to problem-solving abilities regarding (a) the stability of a building-block structure; and (b) how gears turn. The second paper explored how children imagine solving digital technology problems during guided pretend-play in the IT center. The third paper investigated how children cope on their own and/or with teacher intervention when their theories conflict with the evidence they observe while learning about the size of shadows. The fourth is a longitudinal study concerning children's scientific reasoning and scientific knowledge from preschool (5-year-olds) to the fourth grade (10-year-olds) during an experiment assessing melting, evaporation, density, and displacement. All studies demonstrate age-appropriate strategies promoting inquiry and problem-solving practices in early childhood science and technology education.

Keywords: Inquiry, Problem-solving, Early Science & Technology, Reasoning, Conceptual knowledge

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Domain-general and domain-specific components in young children's problem-solving

Presenting author: Jonas Schäfer, Institute for Children and Youth Education, University of Koblenz-Landau, Germany
Co-authors: Timo Reuter, Julia Karbach, Miriam Leuchter

Problem-solving skills are considered crucial for children's subsequent professional and personal success and therefore are targeted in many early childhood intervention programs (Keen, 2011). However, more research is needed to understand young children's problem-solving skills (Diamond, 2018). So far, little is known about the contribution of conceptual knowledge (CK), domain-general and domain-specific skills to problem-solving abilities in 6- to 8-year-old children. In the present study, 215 children (age range: 6-8 years, M = 7.18 years, SD = 0.78) completed tests on their CK of building blocks' stability and the turning-direction and -speed of gears. Afterwards, they solved related problems by stabilizing block constructions and building carousels with gears. Additionally, we measured vocabulary and figural reasoning as indicators of cognitive abilities. Data were collected on tablets by trained supervisors in one-to-one test situations. Data analyses revealed that the problem- solving performance was significantly correlated across the different types of problems (ρ=.212 to .413). Moreover, vocabulary and figural reasoning significantly correlated with problem-solving performance (ρ=.237 to .395). However, CK was significantly related to problem-solving only in the task involving the gear turning-speed (ρ=.212). Results suggest that problem-solving in 6- to 8-year- olds requires domain-general competences that are closely related to verbal and intellectual abilities. Further analyses will take individual problem-solving strategies into account.

Keywords: Domain-general, Domain-specific, Inquiry, Conceptual knowledge

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Developing digital problem-solving skills through pretend play in kindergarten

Presenting author: Lena Hollenstein, St.Gallen University of Teacher Education, Switzerland
Co-authors: Stefanie Thurnheer, Franziska Vogt

One of the crucial 21st century digital skills, in the context of digital transformation, is problem solving (Van Laar et al., 2017). In the context of kindergarten, where learning through play is central, a promising way to foster skills for digital problem solving is through pretend play. The paper examines how children imagine solving digital technology problems in guided pretend play. In an explorative intervention study «we play the future» an IT-centre is introduced as one of the play corners for pretend play in the kindergartens. Children's play was videographed. From the 15 participating kindergartens, 12:50 hours of the recorded video material involving the IT-centre are analysed using content analysis (Kuckartz, 2019). Children pretended to identify N = 114 problems and solved these problems with digital technology strategies (N = 104) such as modify or adapt software (n = 45) or typing on a digital devising (n = 25). With the teacher is guiding play as a co-player, the children used more problem-solving strategies compared to without the teacher (¬Chi2 = 19.42, df = 5; p = 0.002). The potential of guided pretend play for acquiring important 21st century skills such as problem solving is discussed.

Keywords: Digital transformation, Problem-solving, Play, 21st century skills

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Universiteit Utrecht

Individual differences in preschoolers' scientific thinking: relations between exploration and knowledge acquisition under different instructional conditions

Presenting author: Tessa van Schijndel, Research Institute of Child Development and Education, University of Amsterdam, Netherlands
Co-authors: Pia Tio, Maartje Raijmakers

A recent line of work has demonstrated systematics and rationality in preschoolers' exploration. Specifically, uncertainty about an event's causal structure was shown to promote the duration and quality of exploration. A specific case of uncertainty arises when children's theories conflict with the evidence they observe. For example, Authors (2012) demonstrated that 'conflicting evidence' affects the duration of young children's balance play. While the above-mentioned studies have mostly examined how 'conflicting evidence' affects children's exploration, other studies have investigated how 'conflicting evidence', and the (self-)explanation of this evidence, affects conceptual change. For example, Siegler and Chen (2008) demonstrated that children who were encouraged to explain not only evidence that was in line with their predictions, but also 'conflicting evidence', learned more on water displacement. With the present study we aim at bringing together these lines of research by investigating the relations between preschoolers' exploration and learning under different instructional conditions ('conflicting evidence' by itself, and combined with self- and test-leader explanation) in a shadow-size task. Preliminary results show positive relations between the quality of children's exploration and their learning. In contrast, children who did not perform an informative experiment, profited from 'conflicting evidence' with test-leader explanation.

Keywords: Individual differences, Preschool, Scientific thinking, Exploration, Conflicting evidence

Acquiring scientific reasoning and science knowledge: Longitudinal findings on the development of STEM competencies before and during elementary school

Presenting author: Susanner Koerber, Freiburg University of Education, Germany
Co-authors: Christopher Osterhaus

Scientific reasoning and science knowledge are considered key aspects of science competencies. Prior studies found basic competencies and relations even before elementary school (e.g., van der Graaf et al., 2018). Less is known about the interrelation between both aspects in their development to elementary school. In this 6-wave study, we report longitudinal findings concerning children's science competencies from ages 5 (one year before entering school; K0) to 10 (end of grade 4, G4). Altogether, 133 children (60 boys, 73 girls, mean age at the end of kindergarten (K1) = 6 years, 2 months; SD = 4 months) were presented with a) scientific reasoning inventories (SK-I, SPR-I) and with b) science knowledge measures, assessing melting and evaporation and density and displacement (from the projects SnAKe and Science-P). Significant development in scientific reasoning was found from K1 to G4, $F(4, 420) = 94{,}75$, $p < .001$ and in science knowledge from K0 to G3, $F(4, 196) = 64{,}79$, $p < .001$, showing that both competencies develop during elementary school. This finding is noteworthy as the fostering of scientific reasoning is not an explicit aspect in German elementary school curricula. Across all grades, there were significant associations between physics understanding and scientific reasoning, supporting the hypothesis both aspects of science competencies are closely linked. We discuss these findings with respect to the promotion of early science skills.

Keywords: Scientific reasoning, Science knowledge, Science competencies, Preschool, Elementary school

Session H4 – Symposium [15.00–16.30]

Professional development in four European countries: what needs and constraints do ECEC staff report?

Chair: Vasilis Grammatikopoulos, Department of Early Childhood Education and Care, School of Social Sciences, International Hellenic University, Greece
Discussant: Bodine Romijn, Utrecht University, the Netherlands

It is widely accepted that continued support for staff training and development is one key strategy for the continuous upgrade of a high-quality teaching workforce in early childhood education and care (ECEC) (Egert et al., 2018, 2020; Markussen-Brown et al., 2017; Werner et al., 2015). However, the literature has also shown that the relevance and effectiveness of professional development are dependent upon contextual factors (Bayly et al., 2020), calling attention to both working conditions and the overall ECEC system of each country. This symposium brings together findings from a research project involving Cyprus, Greece, Portugal, and Romania. The project used a web-based survey asking ECEC staff to report on their working conditions and professional development needs, activities and interests. The symposium will start by a brief overview of the general goals and methods used. Then four short papers will be presented addressing specific questions related to each country: Paper 1 will examine differences on working conditions and PD between public and private settings in Portugal. Paper 2 will present findings on the associations between PD and workplace climate in Romania. Paper 3 will present teachers' perceptions about the main challenges they face on their professional development in Cyprus. Paper 4 will focus on PD interests, needs and opportunities regarding Positive Behavior Support in Greece, as this represents one of the current major issues in the country. The discussion will take an international perspective to outline common issues across countries and highlight recommendations for the design of relevant and effective PD.

Keywords: Professional Development, Working conditions, Teacher well-being, Cross-country

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Professional development and working conditions of ECEC staff in public and private settings in Portugal

Presenting author: Joana Cadima, University of Porto, Faculty of Psychology and Educational Sciences, Portugal
Co-authors: Tiago Ferreira, Teresa Leal, Carolina Guedes, Catarina Grande, Diana Alves, Filipe Piedade

It is now widely accepted that professional development (PD) opportunities are crucial for the continuous upgrade of a high-quality ECEC teaching workforce (Markussen-Brown et al., 2017). However, it has been recently found that contextual factors, such as type of setting or workplace climate, can impact the access, responsiveness and effectiveness of PD (Bayly et al., 2020). In Portugal, the ECEC system is split into public and private settings, with public settings offering overall better working conditions, but little is known about the workplace climate or the PD opportunities offered across settings. In this study, we examine differences between public and private settings regarding ECEC staff perceptions about working conditions and PD in Portugal. Participants were 92 ECEC teachers, working in either public (37%) or private (63%) settings. Findings revealed that although teachers g in public settings had more years of teaching experience, $t(90)=4.210$, $p<.001$, qualification levels were similar across settings. Teachers in public settings had better workplace climate, $t(90)=3.215$, $p<.001$, greater opportunities to develop professionally $t(90)=2.129$, $p=.012$, display their knowledge and skills, $t(86)=3.356$, $p=.002$ and had more job autonomy $t(90)=2.274$, $p=.003$. In addition, they more likely had attended informal PD, such as participation in ECEC networks, $t(90)=2.170$, $p=.013$ and observation visits to other settings, $t(90)=2.485$, $p=.008$. However, no differences were found in formal PD, number of hours of PD attended or in their levels of interest, with both groups showing great interest for PD. Findings will be discussed considering the current challenges of Portuguese ECEC system.

Keywords: Professional Development, Working conditions, Teacher well-being

Assessment of Professional Development needs and workplace climate of ECEC teachers in Romania

Presenting author: Delia Duminică, University of Pitești, Faculty of Psychology and Educational Sciences, Romania
Co-authors: Georgeta Chirleșan, Manuela Mihaela Ciucurel, Loredana Bloju, Simona Ciucă, Cristina Vlădescu, Anca Zăvoianu, Alina Turculeț

The paper presents findings from questionnaire-based research, implemented in Romania on needs of key-educational stakeholders in ECEC. Studies assert that well-trained and motivated professionals help ensure high quality ECEC is provided to all children, supporting children's learning, development, well-being (OECD, 2021). Thus, needs assessment of ECEC workforce represents supportive tool in preparing customized interventions for PD of ECEC teachers (Fonsén & Ukkonen-Mikkola, 2019). Participants in the study (N = 106) were Romanian ECEC teachers, mostly women (99.1%), with either a bachelor (48.12%) or master degree (40.56%) and 17.07 years of experience (SD = 11.87). The study revealed their high expectations about career progression in the next years, including being able to develop professionally (M=4.45; SD=0.96) and opportunities to display their skills (M=4.41; SD=0.92). Higher levels of workplace climate were positively associated with career prospects. Further, settings' support for PD, such as helping with costs or non-monetary support, were positively associated with higher participation in PD courses/seminars, r=.223, and in qualification programmes, r =.251, p=.009. ECEC staff reveleaved to be very interest in attending PD (M=4.12; SD=0.71). PD areas which participants were most interested were teacher well-being (M=4.45; SD=0.79), working with parents/guardians/families (M= 4.28; SD=0.96), working with SEN children (M=4.28; SD=0.94). A positive link was found between the workplace climate and greater interest in PD, suggesting the importance of workplace supports to increase both PD opportunities and support PD interests. The paper will discuss more in depth findings from envisaged areas within the ECEC system in Romania.
        Keywords: Professional Development, Working conditions, Teacher well-being

Mapping the needs and professional development of ECEC in Cyprus

Presenting author: Demos Michael, Center for the Advancement of Research & Development in Educational Technology (CARDET), Cyprus
Co-authors: Andri Agathokleous, Vicky Charalambous, Panagiotis Kosmas, Charalambos Vrasidas

The ECEC in Cyprus is reported to be under development (Bouget et al., 2015; Mills et al., 2013). Improving ECEC services quality on the island emerges and actions taken towards this direction are reported necessary (Peeters et al., 2016; Rentzou, 2015). The current study intended to assess the needs, efforts and practices regarding ECEC teachers' professional development, well-being and existing children's socio-emotional supports in Cyprus. Participants (N=104) included preschool teachers (75%), vice principals (4%) and principals (7%) working in the public (75%) and private (25%) setting, documenting an average 17 years of experience (SD=9.02). All data were collected through a web-based survey. The results reveal that participants reported participating in PD activities in the last 12 months on average of 60 hours with a large variation (SD=155.02). A high level of motivation for PD is evident, particularly in regard to teacher well-being, M=4.10, SD=0.95. However, in open-ended questions asking about the main challenges they face, a large number of difficulties and challenges were highlighted. The most common difficulties reported were the challenges regarding teamwork, a lack of communication and support from the management, and communicating with parents. Participants also mentioned difficulties related to behavioral management of challenging behaviors and meeting the needs of every child. In addition, other main challenges mentioned were managing their stress levels, the lack of opportunities for PD and/or self-improvement, the bureaucracy of the system in general, and the inadequacy of the promotion's system. Findings will be discussed taking into consideration the Cyprus ECEC system.
        Keywords: Professional Development, Working conditions, Teacher well-being

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Professional development of ECEC staff working with birth-to-six-years-olds on positive behavior support in Greece

Presenting author: Anastasia Vatou, Department of Early Childhood Education and Care, School of Social Sciences, International Hellenic University, Greece
Co-authors: Maria Evangelou-Tsitiridou, Vasilis Grammatikopoulos

An extensive body of literature has shown that professional development (PD) opportunities and working conditions can act as contributors to the provision of high-quality early childhood education and care (ECEC) (OECD, 2012). An important issue in high-quality ECEC relates to supporting and promoting children's social emotional development and positive behavior. However, little is known about teachers' needs and interests on this topic, as well as the workplace supports. This study aims to examine the challenges Greek ECEC staff face regarding PD opportunities on positive behavior support. Quantitative data were collected through an online survey. Participants (N = 100) were preschool teachers (87%), assistants (8%) and infant-toddler pedagogues and care providers (5%). Findings showed that participants appeared to be very keen on PD activities and spent on average 196 hours (SD = 289.09) in the previous year. The most frequent topics of PD activities in which participants were interested focused on school discipline programs (M=4.02; SD=0.94), classroom management (M= 3.89; SD = 0.95) and teacher well-being (M= 3.95; SD= 1.16). Opportunities for attending PD on these topics were related to institution supports such as release teachers from working, non-monetary professional benefits or access to materials needed. Moreover, PD opportunities on the topics were associated with the existence of guidelines on how to address children's more challenging behaviours at the setting, but only a quarter of the participants reported their existence. Good practices and innovative methods are discussed to address these challenges of Greek ECEC staff.

Keywords: Professional Development, Working conditions, Teacher well-being, cross-country