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Interaction in context:
Guest editorial

Joana Cadima[a], Annukka Pursi[b] & Jenni Salminen[c]

[a] *University of Porto, corresponding author, e-mail: joana.cadima@gmail.com,*
https://orcid.org/0000-0002-8814-8899
[b] *University of Helsinki, https://orcid.org/0000-0002-4298-8761*
[c] *University of Jyväskylä, https://orcid.org/0000-0003-4534-6462*

Introduction

The value of children's daily interactions in early childhood settings is currently unquestionable. Substantial evidence has shown that interactions are the key drivers for child development and well-being (e.g., Hamre et al., 2014; Lerkkanen et al., 2012; Vandell et al., 2010). Still, a number of pressing issues calls for further research. Given their dynamic and reciprocal nature, interactions are highly complex, multimodal and multifaceted, and they are experienced by several individuals, which produces conceptual and methodological challenges (Burchinal, 2018; Doehler et al., 2018; Vitiello et al., 2018). Moreover, although interactions are often examined at the group level, they are always embedded in specific cultural contexts that are part of broader early childhood education and care (ECEC) systems that are guided by different policies, values and norms (e.g., Bronfenbrenner & Morris, 2006). Therefore, an in-depth understanding of interactions requires attention to the ECEC context in which interactions take place, including the cultural values, regulations, quality standards and broader societal level (e.g., OECD, 2021; Slot et al., 2016).

Although interactions are preconditions for human life, development and well-being, it is still very difficult to find a fully aligned and agreed-upon definition for what an interaction actually is. The articles in this special issue highlight the richness of interaction research and diversity of the disciplines, along with the background assumptions involved in what we term interaction. The aim of this special issue is to compile the current discussion about interactions in ECEC by focusing on those who construct interactions in the ECEC context. Research on interactions in ECEC has long examined and underlined the importance of teacher–child interactions both for child development and well-being (e.g.,

Burchinal, 2018). The central role of teacher–child interactions for child outcomes has been acknowledged, and over the past few decades more attention has been devoted to defining the characteristics of the quality of teacher–child interactions and forms of teacher support. At the same time, increasing attention has been devoted to examining these relationships from a reciprocal perspective. A needed perspective of children experiencing and shaping these interactions not only with adults, but also with their broader ECEC environments enhances the understanding of interactions as relational contexts (Osher et al., 2020), placing the questions of children's participation at the fore (e.g., Heiskanen et al., 2021).

Every day, significant and meaningful interactional experiences for children are also provided by their peer relations (Corsaro, 2009; Diebold, & Perren, 2021; Fabes et al., 2003; Redder & White, 2017; Williams et al., 2010). Peer relations have an intrinsic value for the child, but they have also been shown to make a difference for child well-being, participation and learning (e.g., Bierman et al., 2009; Fabes et al., 2003; Fantuzzo et al., 2004; Rubin et al., 2006). The value of the interactions that children establish, share and maintain with their peers is gaining increasing attention in research and in the area of ECEC (e.g., Howes et al., 2011; Rubin et al., 2006).

Interaction in institutionalised ECEC is also strongly a matter of professional work, emphasising the perspectives of purposeful pedagogy and teaching in ECEC (Cassidy et al., 2019; Connors, 2019; Ehrlich et al., 2019; Cherrington & Loveridge, 2014). Therefore, teacher characteristics (e.g., qualification, training, work experience, etc.) can make a difference in how the teacher–child interaction in ECEC is constructed in practice. Paying attention to teacher professionalism (e.g., through teacher coaching, professional development, collegial support or well-being) has been recognised in several countries as a central strategy to improve ECEC quality and maintain high-quality teacher–child interactions (e.g., Johnson et al., 2019; Peleman et al., 2018; Perlman et al., 2020). The broader ecological contexts bounded by culture, norms and regulations provide an informative and complementary perspective for when inspecting professional work in ECEC (OECD, 2021).

In this special issue, we aim to advance theory and empirical knowledge on interactions in the ECEC context for children under eight years of age. The special issue explores interactions in ECEC in diverse educational situations, communities, settings, languages and cultures. The special issue is comprises twelve papers that provide much needed informative and complementary perspectives to the current discussions about interactions in ECEC.

A question of quality in interaction

There is a lively and very visible interest in and debate about the quality of interaction in ECEC research. In particular, the teaching through interactions (TTI; Hamre et al., 2013) framework and the CLASS (Pianta et al., 2008; LaParo et al., 2012), which can be used as a systematic observation tool, have gained a central role in interaction research, putting the characteristics of high-quality teacher-child interactions into the spotlight.

Bartholo, **Koslinski**, **Gomes** and **Andrade** (this issue) open this special issue with an important study investigating the applicability of the TTI -framework in an understudied country: Brazil. The results not only show the applicability of the CLASS in Brazilian preschools, but also show the positive, longitudinal associations between interaction quality and linguistic and cognitive child outcomes.

Salminen, **Pakarinen**, **Poikkeus**, **Laakso** and **Lerkkanen**[1](this issue) further extend the CLASS research by examining the interaction quality in toddler playgroups, which has remained an under-researched age group. Findings are particularly relevant for the conceptualisation of interaction quality, as they show positive associations between educational support (rather than emotional support) and socioemotional development. The findings highlight the relevance of moving beyond emotional support to address conversations, communication and reciprocity as an important driver of socioemotional development. Importantly, the results reinforce the holistic nature of interaction quality and the need to examine cross-domain links to better capture child development support.

Teacher-child interaction quality for under three-year-olds is also approached in the study by **Geißler**, **Sonnleithner**, **Petritsch** and **Walter-Laager** (this issue). The authors use a new measure of interaction quality and provide descriptive information in an Austrian context. The study provides a much needed examination of the role of preservice and in-service training for two professional groups: teachers and assistants. Considering the limited understanding of how best to support both professionals, the study offers important insights on the value of informal team meetings for high-quality interactions.

Penttinen, **Pakarinen** and **Lerkkanen** (this issue) also investigate potential influences of the quality of teacher–child interactions, examining the associations among teacher stress, recovery from work, teachers' well-being and teacher–child interaction quality in Finnish preschool classrooms. This study is an important addition to the literature

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[1] Despite acting as an editor of this special issue, Jenni Salminen did not participate in any way in the anonymous peer-review process of his article.

because it shows that recovery from work is central to teachers' well-being and interaction quality. Given the crucial role of teachers in high-quality interactions, the study provides new directions for effective teacher support designs.

Although research using the CLASS has provided structural and systemic ways of conceptualising and approaching interactions, there are limitations to its use (see e.g., Slot et al., 2016). A paper by **Koivula**, **Salminen**, **Rautamies** and **Rutanen**[2] (this issue) shows a new way to understand teacher–child interaction quality along the TTI framework and CLASS measure but here through qualitative lenses. The study showcases the power of teachers' own reflections (Stimulate Recall Interview) for the development of professionalism and professional identities. It proposes using CLASS in combination with more extensive qualitative evaluations, unfolding more culturally contextualised approaches to the CLASS. Overall, the study contributes to broadening the concept of quality by incorporating the value of professional collaboration, the learning environment and available resources for teachers, here as aligned with the Nordic culture and curriculum.

A question of teaching and pedagogy in interaction

Interaction in ECEC classrooms creates an important context for learning (Hamre et al., 2013). Throughout daily interactions, teachers steer and instruct children through a multitude of beneficial approaches and practices, as informed by curriculum, context and children's skills and motivation, ultimately building high-quality ECEC pedagogy (Burchinal, 2018). The following papers examine a broad repertoire of teachers' interactional pedagogical practices within specific content areas while simultaneously illuminating the importance of cultivated and responsive teaching. Together, these studies provide tools to increase teacher's pedagogical awareness in interactional situations with children in ECEC.

The paper by **Grönman**, **Lindfors** and **Rönkkö** (this issue) examines the types of achievement goal orientations that preschoolers possess during craft, design and technology learning processes, identifying the forms of teacher–child interaction support beneficial for children with different goal orientations. A teacher's awareness of various goal orientations can help the teacher plan and implement more focused and beneficial craft, design and technology learning processes.

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Hansell and **Björklund** (this issue) investigate bilingual pedagogy in ECEC by providing information on how an early introduction to Finnish as the second national language is implemented as a language-enriched bilingual programme in a Swedish-medium ECEC unit. The case study scrutinises the bilingual interactions of two kindergarten teachers during typical ECEC activities across one academic year. The findings indicate teachers' use of interaction strategies and what is efficient for bilingual pedagogy, here across various activities and with bilingual exchanges fulfilling several functions. Teachers' individual differences also affect bilingual pedagogy as a whole, even though the two teachers jointly planned their bilingual pedagogy.

In their paper, **Lepola**, **Kajamies** and **Tiilikainen** (this issue) focus on teacher–child interaction in the specific context of dialogic reading. The research introduces a three-year-long coaching project on dialogic reading practices in story groups for five-year-old children, with the central aim of investigating the developmental changes in story group interactions during coaching and the role of children's story comprehension in the development of their verbal participation. The results highlight the value of long-term researcher–teacher collaboration in expanding teachers' repertoires of pedagogical approaches and practices to support children's learning. The research concludes that dialogic reading interactions are constituted in the complex and dynamic interplay among teacher–child and peer interactions and that the systematic use of a dialogic reading approach is beneficial for children with both low and high comprehension skills.

A question of naturally occurring interaction and data-driven approaches

The data-driven approaches to interaction in this special issue are based on short-term and longitudinal ethnographic research conducted in Finnish ECEC settings. The broader frame or starting point is to address naturally occurring interaction by first exploring how children orient themselves to the interaction (e.g., make initiatives, display emotions) in educational settings and how adults (and peers) organise their responses in interaction and, second, how certain phenomena (e.g., acts of compassion; adult–child lap interactions) emerge into the flow of interaction in different situations during the day. In addition to detailing the organisation of everyday interactions (Jordan & Henderson, 1995) in ECEC settings, the data-driven approaches the discuss ways in which adult–child interactions are linked to broader social and institutional roles, responsibilities and divisions of labour as well as children's sociocultural learning, development and socialisation (Rogoff, 2003).

Salmi, **Rajala** and **Lipponen** (this issue) examine the ways in which children's emotional distress and responses to distress are locally organised as acts of compassion in ECEC communities. The authors ground their findings on ten days of observation in one Finnish

ECEC setting for children two to five years of age. The findings demonstrate practices of noticing and highlighting the role of situational judgement in how compassion is organised in group-based institutional interaction.

Lucas Revilla, **Rutanen**, **Harju**, **Sévon** and **Raittila** (this issue) focus on infant–teacher lap interactions during the transition period from home to ECEC. Longitudinal data (e.g., video observations and interviews) and qualitative analysis of the everyday interactions with the same participants at different time points demonstrate a change in engagement in adult–child lap interactions during the children's transition period (first month), highlighting the complexity of the transition period as institutional and educational activity and context. The research concludes that infant–teacher lap interactions are constituted in the complex and dynamic interplay among actors, context and situation.

A question of participation and peer relations

The final section in this special issue suggests that children's rich repertoire of communication, along with creative and open ways of acting in social interaction, allow children not only to establish meaningful ways to participate, but also contribute to building a shared cultural content in ECEC (e.g., Corsaro, 2009; Kangas, 2016; Rogoff et al., 2003). Furthermore, the papers suggest that what children do and how they interact in their proximal ECEC context further allows them to learn and build capacities that embrace diversity in society at large.

The paper by **Papandreou** and **Dragouni** (this issue) investigates peer interactions and the features of communication between children in a Greek multicultural kindergarten. The study is an important contribution to the body of knowledge on the participation of children with vulnerable backgrounds, offering a set of strategies to overcome communication barriers in natural settings. Their research sends out an important message about bolstering peer relations through providing children with communicative tools can further enable immigrant children's participation.

Nikkola, **Kangas**, **Fong** and **Reunamo** (this issue) report on a study that investigates the links between children's creativity and social interactions. The study provides interesting insights into how creativity and participation in social interactions are linked and may reinforce each other. Particularly, their study identifies a link between children's creative thinking and participative social orientation, both of which are considered quintessential for building the shared cultural content of ECEC.

Future directions and concluding remarks

Although studies within this special issue have helped unpack the complexity of interactions in ECEC systems, it is clear that they have only touched on the breadth of this subject. One key notion of the individual contributions is that most of the studies seem to emphasise interactional competences (e.g., children's social competences and professional interactional competences) and their manifestation and/or development in ECEC contexts, here framed with the mindset of increasing the benefits of ECEC. At the same time, what seems to be absent is a systematic horizontal (across settings, communities, cultures, or languages) and vertical (across historical time) comparative research (e.g., Doehler et al, 2018; Rogoff, 2003). Consequently, a challenge remains for future interaction research in ECEC to describe more thoroughly the ways in which change (e.g., in learning; participation; agency; caring; socialisation; belonging; and professionality) is accomplished in interactions over time across occasions, settings, communities and cultures. It remains to be seen whether we have the time, persistency and financial resources for this kind of research in our academic communities and current 'impulse society' (Biesta, 2021; Roberts, 2014), which also demands quick responses to pressing issues in research.

We want to express our gratitude to the authors for their valuable contributions to this special issue and to the anonymous reviewers who gave their valuable feedback. By bringing forth a set of broader ecological contexts bounded by culture, norms and regulations, along with more situated and contextualised approaches, the individual contributions in this special issue have provided an informative and complementary perspective on the current discussions about interaction in context.

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