



## PERSPECTIVES ON TRIGGERS FOR PEER INTERACTIONS FROM EARLY CHILDHOOD EDUCATION TEACHERS AND SPECIAL EDUCATION TEACHERS

Salvador Dukuzumuremyi<sup>1i</sup>,

Signe Siklander<sup>2</sup>,

Elina Viljamaa<sup>3</sup>,

Päivi Pihlaja<sup>4</sup>,

Elina Fonsén<sup>5</sup>

<sup>1</sup>Play, Playfulness and Gamification (PlaPlaGa) Research Group,  
Early Childhood and Music Education Studies (CHIMES) Research Unit,  
Faculty of Education and Psychology,  
University of Oulu Graduate School,  
Oulu, Finland

<sup>2</sup>Play, Playfulness and Gamification (PlaPlaGa) Research Group,  
Early Childhood and Music Education Studies (CHIMES) Research Unit,  
Faculty of Education and Psychology,  
University of Oulu,  
Oulu, Finland

<sup>3</sup>Special Education and Inclusive Education (SPINE) Research Unit,  
Faculty of Education and Psychology,  
University of Oulu,  
Oulu, Finland

<sup>4</sup>Philosophical Faculty,  
School of Applied Educational Science and Teacher Education,  
University of Eastern Finland,  
Joensuu, Finland

<sup>5</sup>Department of Education,  
Institute of Educational Leadership,  
University of Jyväskylä,  
Jyväskylä, Finland

### Abstract:

Interactions among children requiring varying levels of support in general group settings within Early Childhood Education centers can be complex and challenging. Despite the importance of inclusive practices, limited research exists on the specific factors that trigger or enhance peer interactions. Interactional triggers refer to pedagogical strategies, specific practices or environmental conditions that promote interaction among children. In the Finnish context, special education teachers play a central role in supporting inclusive practices, drawing on their pedagogical expertise and the Early Childhood

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<sup>i</sup> Correspondence: email [sdukuzum@student.oulu.fi](mailto:sdukuzum@student.oulu.fi)

Education Core Curriculum. This study investigated the perspectives of Finnish early childhood education teachers and special education teachers regarding the triggers that facilitate children's interactions. Data were collected through semi-structured group discussions and individual interviews with eight early childhood education teachers and twelve special education teachers. The data were analyzed using the phenomenographic method to identify variations in teachers' conceptions of interaction triggers. The findings revealed several perceived practices that promote children's interactions, including inclusive participation strategies, small group activities, content-specific and pedagogical approaches, environmental and resource-based support, and the involvement of familiar adults—such as substitute teachers and practical nurses—within the learning environment. These findings offer valuable insights for early childhood and special education teachers, as well as for universities responsible for teacher education and professional development.

**Keywords:** early childhood education, inclusion, special education needs, phenomenography, triggers for interactions

## 1. Introduction

This study is situated within the context of Finland's Early Childhood Education (ECE) system, which—like many European countries—is committed to inclusive education. In Finland, every child has a subjective right to attend ECE in their municipality, regardless of age or ability (Hau et al., 2022). ECE is an integral part of the national education system, designed to support children's development and promote lifelong learning and educational equity through inclusive practices (Finnish National Agency for Education [FNAE], 2022). According to the Act on ECE (Law 540/2018) and FNAE (2022), ECE services are primarily delivered through center-based programs. Each child is provided with an individualized ECE plan aligned with their interests and developmental needs. While children engage in both verbal and nonverbal interactions within these settings, such interactions are not always spontaneous. In accordance with Law 540/2018, children requiring support for interaction receive targeted assistance. In this study, triggers for children's interactions refer to factors that positively initiate communication—whether during play, collaborative tasks, or the exchange of ideas and outcomes (Dukuzumuremyi & Siklander, 2018). Familiarity and friendship are frequently identified as key interactional triggers (Dukuzumuremyi & Siklander, 2018; Stanton-Chapman, 2014).

Educators in ECE centers—as well as guardians at home—can foster children's interactions through expressions of friendship and familiarity. These dynamics can be understood through the lenses of social mechanisms (Jing et al., 2017), attachment theory (Kennedy, 2022), and playfulness (Pinchover et al., 2016; Siklander & Tornberg, 2024). As used in this study, the term “educators” refers to caregivers, teachers, special education teachers, and practical nurses working in ECE settings. Children's early interactions with

educators and guardians play a foundational role in their social development. These experiences help children build relationships, recognize emotions, develop empathy, and understand the dynamics of social connections—skills that are essential throughout life (Jing et al., 2017; Kennedy, 2022; Pinchover et al., 2016; see also Neitola et al., 2023).

Thagard (2019) identifies that interaction can be transmitted in various ways: (i) verbal (e.g., speaking, singing, writing), (ii) nonverbal (e.g., seeing, hearing, touching, smelling), and (iii) movement-based. Viljamaa et al. (2024) further explore how children express themselves through narration, play, and creative activities such as storytelling, gestures, dancing, drawing, and imaginary play (see also Keränen et al., 2020). These forms of expression are central to children's development and social interactions.

Previous research has emphasized that children's ability to interact with peers, educators, and guardians is a foundation for participation in everyday social, learning, and physical environments (Hau et al., 2022, 2023; Pinchover et al., 2016). While there is a growing body of literature on children's interactions (e.g., Jing et al., 2017; Syrjämäki et al., 2016, 2018; Vakil et al., 2008; Veijalainen et al., 2017), there remains a gap in research examining how teachers perceive the triggers for these interactions in general group settings, including both children with special educational needs (SEN) and those without SEN in ECE centers. Therefore, this study explores the perspectives of ECE and special education teachers on the triggers that facilitate children's interactions in general group settings.

The research is guided by the following questions:

- 1) How do teachers perceive the triggers that facilitate children's interactions?
- 2) How do teachers propose enhancing children's interactions in general group settings?

## **2. Literature Review**

### **2.1. Finnish ECE System from the Inclusive Education Perspective**

In Finland, the current approach to inclusive education within the ECE system is primarily guided by the Act on ECE (Law 540/2018). This legislation outlines (a) children's rights to ECE, (b) the structure and content of ECE activities, and (c) the responsibilities of ECE service providers and organizers. The Act reflects recent reforms aimed at strengthening inclusion and support for children, although the system remains in transition, with teachers navigating ongoing changes (Alexiadou et al., 2022; Pihlaja, 2022). According to the Act, children's individual support needs must be identified, and appropriate support—general, intensified, or special—must be provided. This process may involve multidisciplinary collaboration, including services such as therapy, rehabilitation, child healthcare, and family counseling (FNAE, 2022; Pihlaja, 2022). Furthermore, the Act mandates that all ECE providers must have access to special education teachers and other professionals to meet children's diverse needs.

While the Act provides the legal foundation for inclusion, the ECE Core Curriculum (ECE CC), developed in accordance with the Act, offers more detailed

guidance on the organization and implementation of inclusive education at national, municipal, and institutional levels (FNAE, 2022). The ECE CC applies to all children—those with and without SEN—and outlines policy implementation across three levels: national, local, and individual child plans (FNAE, 2022; Pihlaja, 2022). In practice, the implementation of inclusion varies across municipalities, depending largely on the pedagogical approaches of ECE teachers, the expertise of special education teachers, and the leadership of ECE center directors, who are responsible for curriculum implementation and evaluation (Ahtiainen et al., 2021; Fonsén et al., 2022).

In Finland, nearly all children enrolled in ECE attend general groups in ECE centers, although some are placed in integrated special groups. Placement decisions are based on factors such as the child's age, the presence of siblings, and the level of support required (Pihlaja, 2022; Salminen, 2017). General groups typically include both typically developing children and those with diverse needs (Hughett et al., 2011; Jing et al., 2017; Mj et al., 1996; Vieillevoys & Nader-Grosbois, 2008; Trent et al., 2005). Staffing ratios are regulated: one staff member per seven children over the age of three (maximum 21 children) or one per four children under the age of three (maximum 12 children) in full-day ECE (Bøe et al., 2022; Law 540/2018; Salminen, 2017). These ratios may be adjusted if children requiring intensified or special support are present.

Integrated special groups, which include children with and without SEN, are designed to foster inclusive environments that promote belonging and scaffolded learning. These groups are supported by special education teachers (Kesäläinen et al., 2019; Pihlaja, 2022; Syrjämäki et al., 2018). Group size and staffing are determined according to the Act on ECE (Law 540/2018, Sections 34 and 35).

Research from Finland and other Nordic countries indicates that ECE activities can be organized at various levels: whole-group (also referred to as primary group), small group, or individual, depending on the child's pedagogical plan (Bøe et al., 2022; Hau et al., 2022; Äikäs et al., 2022). This flexible structure supports differentiated instruction and individualized support within inclusive settings.

## **2.2. Physical Learning Environment: Group Settings in ECE Centers**

In this article, we adopt Kuutti et al.'s (2021) definition of SEN, which refers to the need for more than typical support to achieve established educational goals. In this context, SEN encompasses a range of challenges related to communication, peer relationships, group participation, and concentration (p. 588). Research suggests that both children with and without SEN benefit from individualized support and opportunities to learn through interaction with age-appropriate peers, who serve as role models and playmates during social play (Jing et al., 2017; Trent et al., 2005). Supporting this view, Hughett et al. (2011) and Syrjämäki et al. (2018) found that tools such as visual aids, picture cards, and teacher feedback can enhance children's interactions and play.

Ahnert et al. (2006) argue that after toddlerhood, children develop social interaction skills more effectively when placed in peer groups. Through observation, imitation, and shared activities, children learn from one another (Jing et al., 2017). This

peer-based learning also enables children with SEN to improve reciprocal interaction skills through engagement with peers without SEN—and vice versa (Trent et al., 2005). Peer interaction is often more impactful than adult-led instruction, as it exposes children to diverse social experiences and roles among age-matched peers (O’Connell, 1986; Jing et al., 2017). However, some studies have shown that children with autism spectrum disorder (ASD), self-regulation difficulties, or severe disabilities may prefer interacting with adults—such as parents, educators, or experienced play partners—who initiate play, understand the child’s abilities, support their efforts, and model more advanced forms of play (Dimitrios et al., 2024; Kesäläinen et al., 2019; Kuutti et al., 2021; Oprea & Turda, 2025; Pinchover et al., 2016).

### **2.3. Pedagogy in ECE**

In ECE, pedagogy supports not only academic learning but also social development, peer relationships, and overall well-being. It plays a vital role in promoting peer interaction and inclusive participation (Bøe et al., 2022; Hau et al., 2023; Howard & McInnes, 2012; Jing et al., 2017; Kesäläinen et al., 2019; Peltoperä et al., 2020; Syrjämäki et al., 2018; Vogt et al., 2018). Syrjämäki et al. (2018) highlight the role of pedagogy in facilitating social interaction among children, while Hau et al. (2022) emphasize its capacity to involve children meaningfully in daily activities. Through pedagogical engagement, children acquire essential social and life skills (Peltoperä et al., 2020), and develop supportive relationships with peers and adults (Bøe et al., 2022; Pinchover et al., 2016). These practices contribute to the formation of positive peer relations (Mj et al., 1996) and support each child’s well-being, interests, abilities, and needs (Hau et al., 2023; Jing et al., 2017; Kesäläinen et al., 2019; Peltoperä et al., 2020).

#### **2.3.1. Inclusive Pedagogy**

In Finland, inclusive pedagogy is fully embedded in integrated ECE settings. One key strategy involves organizing children into smaller groups, which promotes inclusion and facilitates positive social interaction (Bøe et al., 2022; Hau et al., 2020). This structure allows for more individualized attention and greater participation in daily routines (Hau et al., 2022). Another widely used practice is circle-time, where interactive activities such as singing, storytelling, and games foster a sense of community and strengthen group cohesion (Hau et al., 2022).

#### **2.3.2. Play Pedagogy**

Play pedagogy is a central component of inclusive ECE, particularly in Finland, the United States, and Australia. Rather than adopting a passive role, educators actively facilitate children’s play, engaging as co-players and guides (Fleer, 2015). Fleer identifies three modes of play pedagogy: child-initiated, adult-guided, and policy-driven. Among these, child-initiated play is considered the most beneficial, especially for children with SEN, as it enhances engagement and emotional well-being (Howard & McInnes, 2012; Vogt et al., 2018). Play pedagogy enables children to learn from one another in inclusive

environments, making it a cornerstone of integrated group practices (Kesäläinen et al., 2019).

### **2.3.3. Holistic Pedagogy**

Holistic pedagogy, as practiced in Nordic ECE models, integrates caregiving, play, learning, and participation to support children's comprehensive development. This approach reflects a commitment to nurturing the whole child—socially, emotionally, cognitively, and physically—within a unified pedagogical framework (Bøe et al., 2022). It aligns with inclusive values by recognizing and responding to the diverse needs and strengths of all children.

### **2.4. Interactional Playful Triggers**

Interactional playful triggers refer to elements or situations within a child's environment that capture attention, spark interest, and promote social interaction. These triggers can elicit both verbal and nonverbal exchanges among children—whether during play, collaborative tasks, or while sharing progress and outcomes (Dukuzumuremyi & Siklander, 2018). Triggers become playful when they emerge through humor, imagination, creativity, or light-hearted engagement. They stimulate curiosity, evoke emotional responses such as joy, inspiration, and a sense of belonging, and foster persistence and sustained engagement (Hidi & Renninger, 2006; Renninger & Bachrach, 2015). Such triggers often arise in shared contexts, including structured activities, natural environments, and social interactions—particularly those involving peers and teachers. The concept of teacher playfulness as a form of pedagogical expertise has gained increasing scholarly attention (Hurme et al., 2023; Siklander et al., 2024). Playful teachers are adept at recognizing and generating these triggers to support children's engagement and interaction (Cullinane et al., 2024; Siklander & Kangas, 2020; Siklander & Tornberg, 2024; Stanton-Chapman, 2014).

When children perceive these triggers, they are drawn into playful, interactive behavior. Teachers who embody interactional playfulness design collaborative, imaginative, and emotionally resonant activities while also responding to spontaneous playfulness that emerges in peer interactions (Siklander & Tornberg, 2024). In doing so, they cultivate emotionally secure and engaging learning environments. Because playfulness is embodied, teachers may also use physical expression to connect with children. Interactionally playful teachers often find joy in eliciting laughter and shared enjoyment. Across all ECE settings, it is essential for educators to remain attuned to children's emotional and developmental needs—even in group contexts. This sensitivity is a core component of interactional playfulness (Hurme et al., 2023; Siklander & Kangas, 2020; Siklander & Tornberg, 2024).

Teaching through the intentional use of interactional playful triggers activates multiple pedagogical dimensions in ECE (Siklander & Kangas, 2020). One key dimension is collaboration, as shared experiences can spark interest and enhance peer interaction. For example, children may co-create imaginative worlds or engage in joint play scenarios

that foster belonging and mutual engagement. A second dimension is emotional engagement. While emotional safety is foundational, children are also drawn to the emotional intensity of physically active and adventurous play—especially when experienced collaboratively. These experiences allow children to test boundaries and develop cooperative skills (Siklander et al., 2020).

Creativity and narrativity are also powerful playful triggers that support interaction (Siklander & Kangas, 2007; Siklander & Kinnunen, 2024). Creative problem-solving tasks can prompt dialogue, negotiation, and shared exploration. Similarly, narrativity—the co-construction and enactment of stories during play—encourages children to shape plots, negotiate roles, and engage in turn-taking, decision-making, and problem-solving. Together, these elements form a responsive pedagogical framework for fostering interaction in ECE.

### **2.5. Content in ECE: Play, Planned, and Guided Activities**

Play-based activities, along with toys, materials, and physical infrastructure, are essential components for supporting learning in science, language, and other subject areas within ECE settings (Fleer, 2015; Kirova, 2016). Play serves as a foundational element for engaging diverse groups of children—including native speakers, non-native speakers, children with SEN, and typically developing children—in both verbal (e.g., spoken language) and nonverbal (e.g., gestures, signs, and visual aids) interactions centered around play materials and the learning environment (DeKlyen & Odom, 1989; Kirova, 2016; Stanton-Chapman, 2014; Syrjämäki et al., 2018). Play also allows children to learn in self-directed ways, particularly through observation and imitation, either independently or with support from peers or educators (DeKlyen & Odom, 1989). This makes play a highly effective and inclusive content area in ECE.

In addition to play, planned or guided activities—such as construction, storytelling, painting, drawing, and role-play—are vital for fostering a range of developmental competencies. These include mathematical thinking, creativity, language development, fine motor skills, social and friendship skills, and early exploration of professions and the natural world (Bøe et al., 2022).

## **3. Material and Methods**

This study utilized a qualitative research approach and was conducted as part of the VakaTuki research project, which investigated the implementation of the amended ECE Act (540/2018; 1183/2021). The focus was on general, enhanced, and special support during the transition period from August 1, 2022, to December 31, 2023.

### **3.1 Participants and Sampling**

Purposive sampling was employed to recruit individuals with relevant experience related to the research topic (Ahmed, 2024). Participants were identified through the researchers' personal and professional networks. Initial contact was made informally to

assess interest in participation. Once interest was confirmed, a formal invitation was sent via mutually agreed communication channels, including email, phone message, Messenger, WhatsApp, and Signal. To ensure accessibility and clarity, all essential information was included directly in the body of the message rather than as attachments. The message contained a link to the privacy notice, a brief overview of the study and its objectives, background information questionnaire and a consent form for participation. This approach ensured that participants were fully informed about the study and their rights before confirming their involvement.

A total of 20 participants took part in the study: 8 ECE teachers and 12 special education teachers working in ECE centers across Central, Southern, Northern, and Eastern Finland. All participants identified as female. Among the special education teachers, four worked in consultative roles, three were based in group settings, one held a dual role (group and consultative), and four did not specify their roles. In Finland, consultative roles are the most common for special education teachers in ECE. Of the 12 special education teachers, five were employed in private ECE centers and seven in public centers. Among the eight ECE teachers, six worked in public centers and two in private ones

### **3.2. Data Collection**

Semi-structured interviews were used to collect data, guided by a set of open questions designed to facilitate discussion in both group and individual interview formats. The guiding questions were:

- 1) What do you think “inclusion” or “inclusiveness” means?
- 2) In your opinion, what principles should guide the formation of child groups?
- 3) Even within same-age groups, children can be very different from one another. Does this present challenges? If so, what kind? Are there benefits? What kind? How should diversity be taken into account?
- 4) What kind of content should early childhood education include to foster encounters, interaction, and collaborative activities among children?
- 5) Which children are eligible for support? Does it apply to all children or only to certain individuals?
- 6) What are the roles of various stakeholders (guardians, early childhood education staff, service providers, and decision-makers) when a child needs support for development and learning?
- 7) Do children themselves have a role in matters related to support, or are they excluded from this process?

Data were collected in Finnish and subsequently translated into English. Data were gathered through five group discussion interviews and five individual interviews, all conducted via Microsoft Teams and audio-recorded. Table 1 shows that the data were collected through group discussion interviews and individual interviews. During group discussions, participants usually build on others' contributions and challenges, express their opinions, or ask questions.



Automatic transcriptions generated by Teams were manually reviewed for accuracy by three researchers and served as the primary data source. Video recordings were not analyzed. ECE teachers ( $n = 8$ ) and special education teachers ( $n = 7$ ) participated in the five group discussions. Table 2 presents the number of participants per group. Additionally, five special education teachers participated in individual interviews.

The transcriptions from the three group discussions with ECE teachers totaled 70 pages, organized into three files:

- Group Discussion 1 (23 pages),
- Group Discussion 2 (24 pages), and
- Group Discussion 3 (23 pages).

Transcriptions involving special education teachers totaled 115 pages across seven files: two group discussions (39 pages, two files) and five individual interviews (76 pages, five files).

**Table 1: Data Collection Instruments and Transcriptions**

	Data collection instruments	Participants	Research questions	Transcriptions	
	3 group discussions	8 ECE teachers	2	70 pages	3 files
	2 group discussions	7 special education teachers	2	39 pages	2 files
	5 individual interviews	5 special education teachers	2	76 pages	5 files
<b>Total</b>	<b>10 instruments</b>	<b>20 participants</b>	<b>2 RQs</b>	<b>185 pages</b>	<b>10 files</b>

**Table 2: Group Discussions with ECE teachers and Special Education Teachers**

	Group discussions with ECE teachers		Group discussions with Special education teachers	
	Groups	Participants	Groups	Participants
	Group 1	3	Group 1	4
	Group 2	2	Group 2	3
	Group 3	3		
<b>Total</b>	<b>3 groups</b>	<b>8 participants</b>	<b>2 groups</b>	<b>7 participants</b>

### 3.3. The Phenomenographic Method in This Study

Phenomenography is a qualitative research approach that focuses on the different ways individuals perceive and experience a particular phenomenon (Marton, 1981; Kakkori & Huttunen, 2014). The primary aim of phenomenographic research is to describe, analyze, and understand the variation in these perceptions and the relationships among them. This study employed a phenomenographic approach due to its strong relevance for exploring teachers' experiences (Barnacle, 2005; Mann et al., 2007; Walsh, 2000; Åkerlind, 2005). Specifically, it enabled us to explore how ECE teachers and special education teachers perceive the triggers that facilitate children's interactions in ECE settings. This approach allowed us to identify both commonalities and differences in the teachers' perspectives, including unique viewpoints expressed by individual participants. These

findings offer valuable insights for promoting interactional change among children in ECE centers.

### 3.4. Data Analysis

Transcriptions were analyzed using a phenomenographic method, similar to the method used by Tsai (2004) and Tsai et al. (2011), to identify qualitative relationships and organize the findings into ordered categories, each supported by descriptions and illustrative quotations. To begin, we read the transcripts multiple times for both group discussion interviews and individual interviews to develop a comprehensive understanding of the data. We underlined key sentences and highlighted keywords that reflected teachers' perspectives on the triggers for children's interactions. These selected sentences and keywords were then compared to identify and explore key similarities and differences in teachers' perspectives. This comparative analysis revealed qualitative variations in how teachers perceived the triggers for children's interactions. For instance, the following sentences were identified as particularly significant in illustrating one teacher's perspectives on these triggers:

*"Everyone can participate and feel a sense of togetherness and inclusion within the group. There are no barriers preventing anyone from joining. This principle applies to every child in ECE or school, ensuring that everyone has the opportunity to be involved, feel included, belong to the group, and participate to their full potential."*

We then highlighted some key words, such as "everyone," "participate," "togetherness," and "inclusion", that captured the teachers' main thoughts on triggers for children's interactions.

The other teacher shared the following responses:

*"All children are integrated into the same groups with their own support measures, enabling them to participate and be part of the group. It is important to me that every child experiences being in a group, feeling equal to others, and recognizing their right to belong. Additionally, others learn about differences, tolerance, and acceptance. In my opinion, inclusion is a wonderful common goal that we are obliged to consider, and it guides our activities here."*

We again highlighted specific keywords to illustrate the teacher's perspective on triggers for children's interactions, such as "all children," "participate," "be part of the group," and inclusion." For instance, keywords like "everyone," "participate," "togetherness," "inclusion," "all children," and "be part of the group" demonstrated a high degree of similarity. However, these keywords were notably distinct from others, which led us to gradually develop a category related to implementing inclusive participation strategies as a trigger for children's interactions. Following this comparison, the selected sentences were grouped based on keywords with strong thematic similarity.

This process of organizing similarities allowed categories representing perspectives on triggers for children's interactions to emerge. If a teacher expressed ideas that aligned with one or more categories, their statements were included in those respective categories. Additionally, the categories were organized in relation to two research questions.

### **3.5. Ethical Considerations**

This study was conducted in accordance with the ethical principles and guidelines established by the Finnish National Board on Research Integrity (TENK). Before participating, all individuals were informed of their rights, the purpose of the study, how their data would be used, and the confidentiality measures implemented to protect their personal information (TENK, 2019). For example, each participant was assigned a unique identification code for use in data analysis and the reporting of findings. All data are securely stored, and the data usage and protection policy is publicly available in both Finnish and Swedish at the following link: <https://uefconnect.uef.fi/en/the-support-system-and-administrative-processes-in-ece>. The English language of this manuscript was reviewed and refined with the assistance of the Copilot tool. This support was used solely to enhance linguistic accuracy and did not influence the interpretation of the data or the integrity of the research findings.

## **4. Results and Discussion**

### **4.1. Results**

The results are organized and presented in accordance with the research questions. Each participant was assigned a unique identification code, which was used throughout the presentation of the findings. Codes beginning with "ECT" represent ECE teachers, while those beginning with "ECST" denote ECE special education teachers. Each code is followed by a sequential number that uniquely identifies individuals within each group. The following section describes five thematic categories reflecting teachers' perspectives on the triggers of children's interactions, supported by direct quotations from the interview transcripts.

#### **4.1.1. Triggers for Children's Interactions**

To address the first research question, four primary categories of triggers for children's interactions were identified based on the perspectives of ECE teachers and special education teachers: (a) implementing inclusive participation strategies, (b) using small group activities, (c) content and pedagogical approaches, and (d) support from the environment and resources. Each category is described in detail below.

##### **4.1.1.1. Implementing Inclusive Participation Strategies**

In this first category, although neither ECE teachers nor special education teachers explicitly referred to the concept of *triggers for children's interactions*, many described

practices that align with this idea. Specifically, they perceived the implementation of inclusive participation strategies as an effective means of fostering interaction among children. According to these teachers, such strategies create opportunities for all children to engage with one another, thereby serving as a trigger for interaction.

The following comments from three special education teachers further illustrate this perspective:

*"Our task is to support each child's individual needs so they can work with the group. No one should be excluded because of their challenges or needs. We need to find ways to help each child integrate into the group." (ECST2)*

*"All children are integrated into the same groups with their own support measures, enabling them to participate and be part of the group. It is important to me that every child experiences being in a group, feeling equal to others, and recognizing their right to belong. Additionally, others learn about differences, tolerance, and acceptance. In my opinion, inclusion is a wonderful common goal that we are obliged to consider, and it guides our activities here." (ECST5)*

*"Everyone can participate and feel a sense of togetherness and inclusion within the group. There are no barriers preventing anyone from joining. This principle applies to every child in ECE or school, ensuring that everyone has the opportunity to be involved, feel included, belong to the group, and participate to their full potential." (ECST10)*

For example, the following responses from ECE teachers illustrate this perspective:

*"Absolutely. I believe that when there are people in the group who need support, activities should be planned so that everyone can participate at their own level. There can't be just one plan for everyone; the needs of all children must be considered." (ECT1)*

*"Everyone can participate at their own ability level, which is exactly what I was thinking too." (ECT2)*

*"And somehow, he participates in the same activity as if he is part of the group. It's not just that he has something different about him now, but that he, with his own abilities, is in the same place as the others, with no difference." (ECT3)*

*"The idea is to ensure equality for special children so they can participate in ECE just like other children." (ECT5)*

#### 4.1.1.2. Using Small Group Activities

In this second category, both special education and ECE teachers identified small group activities as key triggers for children's interactions. They believed that some children interact more effectively in smaller settings, where the environment is more manageable and supportive. The teachers also noted that interaction is embedded in the structure and pedagogy of small group activities, which naturally foster both peer-to-peer and child-teacher engagement. Small group activities mentioned by the teachers included guided play, shared and joint games, songs, and music. These formats were seen as particularly effective in promoting inclusive and meaningful interactions.

This is illustrated in the following excerpt from the discussion among special education teachers:

*"I personally think that the small group itself is already a huge benefit, and then there has been some thought given to who needs more support in certain matters and who does not necessarily need so much support."* (ECST3 and ECST1)

ECST1 agrees with ECST3 and adds,

*"There are children who definitely need this and function best in a small environment."*

Another special education teacher elaborated:

*"In our kindergarten, home groups are formed based on the children's birth year. Small groups, however, are organized differently, allowing children to choose activities like workshops and join specific groups for varying durations (morning, week). Despite this, each child remains part of a home group overseen by designated adults."* (ECST3)

The following perspectives were shared by two ECE teachers:

*"Small group enables you to meet and interact with almost everyone, providing the stamina needed for this work. The positive impact on the children is evident."* (ECT6)

*"Well, yes, I would say that smaller groups are more effective. We work in small groups."* (ECT8)

*"And especially the children who benefit from smaller groups will show up. They do not gain as much from being in a large group."* (ECT6)

#### 4.1.1.3. Content and Pedagogical Approaches

In this third category, the data suggest that special education teachers perceived content and pedagogical approaches as potential triggers for children's interactions.

For example, the following statements were made by ECE special education teachers:

*"I won't discuss the content here. I'm curious about the importance of play. To me, play is the most crucial aspect. It's about immersing in the child's world, which doesn't need anything else. By engaging in play, we can achieve the educational goals we adults have in mind. Ideally, children learn so much through play that they don't even realize it's part of a structured learning process." (ECST6)*

*"In terms of content. Play should be the focus as it fosters interaction. Adults should actively participate in play rather than just supervising. When adults are involved, children who struggle to join in can find a role and engage. Play should be complemented by planned, high-quality activities involving art, exercise, and music, allowing children to express themselves in diverse ways. After play, we need to gather together daily to reinforce the sense of community. We must come together daily to ensure the children feel part of the community. It's an adult's job to keep in mind all the members of the group, including those who are absent. There should be something fun and common that builds a sense of group work and belonging. Common games and routines help everyone feel included and enjoy being part of the group. This sense of belonging starts within the group and expands to the larger kindergarten community." (ECST10)*

#### **4.1.1.4. Support from the Environment and Resources**

In this fourth category, the data indicate that many ECE and special education teachers believed that all ECE centers should be equally well-equipped in terms of environment and resources to effectively meet the diverse needs of every child.

This perspective is exemplified in the following excerpt from an ECE teacher:

*"In my opinion, it would be better to allocate resources so that children can participate and benefit more effectively. This would help them integrate better." (ECT5)*

For example, ECE special education teachers noted the following:

*"I believe in the neighborhood school principle, where every ECE center should offer the same level of ECE. People often choose specific centers for perceived advantages, but ideally, all centers would follow the same principles and methods. This would ensure consistency in the quality of care and education across all units." (ECST3)*

*"We don't have special or small groups. All children attend a nearby kindergarten. Occasionally, individual support is considered elsewhere, but generally, support is provided at the child's local kindergarten." (ECST6)*

*“From a support perspective, in our municipality, the number of children needing support doesn’t reduce group sizes. Instead, additional resources are provided.” (ECST12)*

#### **4.1.2. Teachers' Role in Enhancing Children's Interactions in General Group Settings**

To address the second research question, one primary category of triggers for children's interactions was identified from the perspectives of ECE and special education teachers: the teacher’s role. In this category, both ECE and special education teachers believed that children's interactions can be improved by revising the placement policy for children with SEN. Specifically, they advocated for integrating children with SEN into general ECE centers and groups alongside their non-SEN peers. Additionally, the teachers highlighted the importance of equipping all ECE centers to support interaction-focused practices and recommended employing familiar adults—such as known substitute teachers or other ECE staff—to foster a more stable and supportive environment for interaction.

This perspective is illustrated in the following excerpt:

*“Community and belonging to a group, the right to it, and equality are important. Children who need support are in the same group as others, with their support needs accommodated. This ensures every child feels equal and learns about differences, tolerance, and acceptance. Special pedagogical methods are used based on the support needed, whether in small group activities or individual tasks.” (ECST5)*

*“We are all human beings living in the same society, so there’s no need to classify us differently. We have no special or small groups; all children attend a nearby kindergarten, where support is organized.” (ECST6)*

For example, two ECE teachers responded as follows:

*“We have excellent resources, including four substitutes here in the house, so that whenever someone is absent, the familiar adults come and go.” (ECT8)*

*“Children need to learn communication and cooperation skills from their parents through facial expressions, gestures, and talk in daily activities. They also need a close relationship with their parents.” (ECT4)*

#### **4.1.3. Distribution of Teachers’ Perspectives on Triggers for Children's Interactions**

Table 3 presents the distribution of teachers’ perspectives on triggers for children's interactions and strategies for enhancing these interactions, categorized into five thematic areas. The category *implementing inclusive participation strategies* was identified as a key factor by all 20 teachers. *Using Small Group Activities* was mentioned by 18 teachers. *Content and Pedagogical Approaches* were cited by 12 teachers, while both *Support from the Environment and Resources* and *Teachers’ Roles* were each noted by 14 teachers.

## **4.2. Discussion**

This study explores the perspectives of ECE and special education teachers on the triggers that facilitate children's interactions in general group settings, using a phenomenographic approach. The analysis identified five key categories: (a) implementing inclusive participation strategies, (b) using small group activities, (c) content and pedagogical approaches, (d) support from the environment and resources, and (e) the teacher's role.

In addition to these categories, the analysis revealed emerging best practices that offer new ways to foster children's interactions. These include revising placement policies for children with SEN in ECE settings and employing familiar adults as substitute teachers or support staff. These practices align with the phenomenographic methodology as described by Åkerlind (2005) and Mann et al. (2007). Based on the results, the following topics require more detailed discussion.

### **4.2.1. Inclusive Participation and Placement Policy as Triggers for Children's Interactions**

Many ECE and special education teachers emphasized inclusive participation as a key trigger for children's interactions. According to these teachers, the inclusion and placement of children with SEN in mainstream ECE groups have the most significant impact. They advocated for placing all children—regardless of their support needs—in general groups, where they can participate at their own level, experience group dynamics, and learn about diversity, tolerance, and acceptance. This inclusive environment fosters a sense of belonging and encourages interaction. Importantly, children with SEN must receive the necessary support within these settings to thrive.

These perspectives align with the ECE CC's emphasis on participation (FNAE, 2022) and are supported by research showing that children with SEN benefit more from inclusion in general groups than from placement in specialized settings (Lee et al., 2015). Vakil et al. (2008) demonstrated that children with SEN—particularly those with challenges in communication, play, and social engagement—benefit from daily interactions with peers who possess strong social and communication skills. Jing et al. (2017) and Trent et al. (2005) describe these peers as role models or playmates, facilitating learning through observation, imitation, and social interaction. These findings also reflect principles from social mechanisms and attachment theory, which suggest that children learn how to form relationships, manage emotions, and provide comfort through peer interactions (Jing et al., 2017; Kennedy, 2022). It is essential that ECE leaders recognize the pedagogical implications of placement policies when forming child groups (Ahtiainen et al., 2021; Fonsén et al., 2022).

### **4.2.2. Equitable Access to High-Quality Environments and Resources**

Teachers also highlighted the importance of equitable access to high-quality environments and resources as essential triggers for children's interactions. They noted that some ECE centers currently lack the capacity to provide additional support. To



address this, they recommended that all centers be equally equipped so that children can attend ECE center close to home and interact with familiar peers. This would prevent the concentration of children with SEN in specific centers.

These perspectives are supported by previous studies (Dukuzumuremyi & Siklander, 2018; Hau et al., 2022; Siklander & Kangas, 2020; Siklander & Tornberg, 2024; Trent et al., 2005), which emphasize that interaction triggers can stem from various sources, including the physical environment, activities, nature, and social relationships. Teachers also identified the presence of familiar adults—such as substitute teachers or support staff—as a powerful trigger. Cullinane et al. (2024) found that familiar adults, who understand children's individual needs and have established relationships with them, foster enjoyable interactions and support learning, communication, creativity, and exploration.

#### **4.2.3. Small Group Activities, Content, and Pedagogical Approaches**

The study further revealed that small group activities, along with thoughtfully designed content and pedagogical strategies, are effective in promoting children's interactions. These approaches help children build sustained relationships with peers and adults, practice turn-taking, engage in joint play, and develop emotional regulation (Locchetta et al., 2016). Research supports the use of small group activities in inclusive settings to foster social interaction and a sense of community (Bøe et al., 2022; Hau et al., 2020). Such environments allow for scaffolding and inclusive participation (Syrjämäki et al., 2018). Teachers emphasized that content should center on play and planned activities, which enable children to form friendships, enjoy shared experiences, and develop a wide range of skills—including language, art, science, music, and self-expression.

These findings are consistent with theoretical research (DeKlyen & Odom, 1989; Kirova, 2016; Stanton-Chapman, 2014; Syrjämäki et al., 2018), which highlights the role of play in fostering both verbal and non-verbal interactions. Bøe et al. (2022) further demonstrated that guided activities help children explore, learn, and develop essential social and cognitive skills.

### **5. Recommendations**

One limitation of this study should be acknowledged: the findings are based solely on teachers' self-reported data and do not include the perspectives of children themselves. To gain a more comprehensive understanding of interaction dynamics in inclusive ECE settings, future research should explore children's experiences directly—particularly in group environments that include children with multiple support needs. Our forthcoming study will focus specifically on the opportunities for children with multiple support needs to engage in learning through peer interactions. Additionally, incorporating the perspectives of guardians will be essential. Their insights can provide valuable contextual information and further enrich our understanding of how to support meaningful and inclusive interactions among all children in ECE settings.

## 6. Conclusion

This study successfully achieved its aim by identifying the diverse perspectives of early childhood education (ECE) and special education teachers regarding the triggers that facilitate children's interactions. It highlighted a range of effective practices that teachers believe can significantly enhance peer interactions in general group settings, including among children with and without special educational needs (SEN). The findings have important implications for ECE and special education professionals seeking to promote inclusive and socially engaging learning environments. Furthermore, this study contributes to the broader body of literature on inclusive education and offers valuable insights for teacher preparation programs in higher education.

### Funding Statement

This study was supported by the Ministry of Education and Culture, Finland, through the project VakaTuki: The Support System and Administrative Processes in ECE.

### Acknowledgement

We would like to express our sincere gratitude to the participating ECE centers, ECE teachers, and special education teachers for their valuable contributions, which made this study possible.

### Conflict of Interest Statement

The authors declare no conflicts of interest.

### About the Authors

**Salvador Dukuzumuremyi** is a doctoral researcher at the University of Oulu Graduate School, Faculty of Education and Psychology, Finland. His research focuses on interactional triggers, peer interactions, inclusion, collaboration, and learning environments in early childhood education. He also serves as a course instructor for undergraduate programs taught in English at the University of the People. Prior to this, he worked as a Tutorial Assistant at the College of Education, University of Rwanda.

Email: [sdukuzum@student oulu fi](mailto:sdukuzum@student oulu fi)

ORCID: <https://orcid.org/0000-0002-1924-1299>

**Signe Siklander (PhD, Title of Docent)** holds a tenure position as an Associate Professor in Early Childhood Education (ECE) at the Faculty of Education and Psychology, University of Oulu. Previously, she led a research-based international master's degree programme in Learning, Education, and Technology (LET), which is grounded in the learning sciences. Siklander's research primarily focuses on children's play and play environments, as well as teachers' playful expertise. In addition to children, her studies encompass pre-service and in-service teachers and teacher education as a whole. Siklander's research group, Play, Playfulness, and Gamification (PlaPlaGa), extensively

investigates the connections between playfulness and agency, triggers, engagement, well-being, and learning.

Email: [signe.siklander@oulu.fi](mailto:signe.siklander@oulu.fi)

ORCID: <https://orcid.org/0000-0003-4437-4541>

**Elina Viljamaa, PhD**, is a University lecturer at the University of Oulu, Faculty of Education and Psychology, Special Education. Her research interests are early childhood education, childhood studies, inclusion and belonging.

Email: [elina.viljamaa@oulu.fi](mailto:elina.viljamaa@oulu.fi)

ORCID: <https://orcid.org/0000-0001-8885-071X>

**Dr. Päivi Pihlaja** is a Professor in education in the Philosophical Faculty in the School of Applied Educational Science and Teacher Education at the University of Eastern Finland. Professor Pihlaja's research focuses on inclusive and special education and early childhood education.

Email: [paivi.pihlaja@uef.fi](mailto:paivi.pihlaja@uef.fi)

ORCID: <https://orcid.org/0000-0002-1393-3104>

**Elina Fonsén** is an Assistant Professor of Educational Leadership at the Institute of Educational Leadership, The Department of Education, University of Jyväskylä, Finland. She has been a Docent at the University of Eastern Finland since 2019. Fonsén's previous work experience was at the University of Helsinki, where she was a University Lecturer and Deputy Head of the Department of Education. Prior to that, he worked at the University of Tampere as a university lecturer and project coordinator. She is a Member of the Board of the Early Childhood Education Association Finland (ECEAF), the chief of the International Leadership Research Forum (ILRF -EC) and the chief of the Executive Board of the Education, Administration and Research (SIG) of Finnish Society for Education and a Board member of the Federation of Finnish Learned Societies.

Email: [elina.k.fonsen@jyu.fi](mailto:elina.k.fonsen@jyu.fi)

Webpage: <https://www.jyu.fi/en/people/elina-fonsen>

ORCID: <https://orcid.org/0000-0002-2547-905X>

## References

- Ahmed, S. K. (2024). Research methodology simplified: how to choose the right sampling technique and determine the appropriate sample size for research. *Oral Oncology Reports*, 12, 100662. <https://doi.org/10.1016/j.oor.2024.100662>
- Ahnert, L., Pinquart, M., & Lamb, M. E. (2006). Security of children's relationships with non-parental care providers: A meta-analysis. *Child Development*, 77(3), 664–679. <https://doi.org/10.1111/j.1467-8624.2006.00896.x>
- Ahtiainen, R., Fonsén, E., & Kiuru, L. (2021). Finnish early childhood education and care leaders' perceptions of pedagogical leadership and assessment of the implementation of the National Core Curriculum in times of change. *Australasian*

- 
- Journal of Early Childhood, 46(2), 126–138.  
<https://doi.org/10.1177/18369391211010971>
- Alexiadou, N., Hjelmér, C., Laiho, A., & Pihlaja, P. (2022). Early childhood education and care policy change: comparing goals, governance and ideas in Nordic contexts. *Compare*, 54(2), 185–202. <https://doi.org/10.1080/03057925.2022.2092451>
- Barnacle, R. (2005). Interpreting interpretation: A phenomenological perspective on phenomenography. In Bowden, J. A., & Green, P. (Eds.), *Doing Developmental Phenomenography* (pp. 47–55). RMIT University Press
- Bøe, M., Heikka, J., Kettukangas, T., & Hognestad, K. (2022). Pedagogical leadership in activities with children – A shadowing study of early childhood teachers in Norway and Finland. *Teaching and Teacher Education*, 117(2022), 1–10. <https://doi.org/10.1016/j.tate.2022.103787>
- Cullinane, D. A., Binns, A. V., Feder, J. D., Graham, T., Mahoney, G. J., Naber, F. B. A., Robinson, R. G., Schertz, H. H., Solomon, R. M., Whitehouse, A. J. O., & Wieder, S. (2024). Developmental Relationship-Based Interventions for autistic children. *Topics in Early Childhood Special Education*, 1–12. <https://doi.org/10.1177/02711214241303695>
- DeKlyen, M., & Odom, S. L. (1989). Activity structure and social interactions with peers in developmentally integrated play groups. *Journal of Early Intervention*, 13(4), 342–352. <https://doi.org/10.1177/105381518901300406>
- Dimitrios, S., Kiriakos, T., Travlos, K. A., Siafaka, V., Skordilis, E., Foteini, C., Papadimitropoulou, P., Mavropalias, T., & Thanou, E. (2024). Factors influencing the social-emotional behavior of children with autism: the influence of psychomotor clumsiness. *European Journal of Special Education Research*, 10(7). <https://doi.org/10.46827/ejse.v10i7.5639>
- Dukuzumuremyi, S., & Siklander, P. (2018). Interactions between pupils and their teacher in collaborative and technology-enhanced learning settings in the inclusive classroom. *Teaching and Teacher Education*, 76, 165–174. <https://doi.org/10.1016/j.tate.2018.08.010>
- Finnish National Agency for Education (2022). National core curriculum for early childhood education and care. Opetushallitus. Retrieved from <https://www.oph.fi/sites/default/files/documents/National%20core%20curriculum%20for%20ECEC%202022.pdf>. Accessed 20 January 2024
- Finnish National Board on Research Integrity TENK (2019). The ethical principles of research with human participants and ethical review in the human sciences in Finland. TENK. Retrieved from [https://tenk.fi/sites/default/files/2021-01/Ethical\\_review\\_in\\_human\\_sciences\\_2020.pdf](https://tenk.fi/sites/default/files/2021-01/Ethical_review_in_human_sciences_2020.pdf). Accessed 15 December 2023
- Fleer, M. (2015). Pedagogical positioning in play – teachers being inside and outside of children’s imaginary play. *Early Child Development and Care*, 185(11–12), 1801–1814. <https://doi.org/10.1080/03004430.2015.1028393>
- Fonsén, E., Lahtinen, L., Sillman, M., & Reunamo, J. (2020). Pedagogical leadership and children’s well-being in Finnish early education. *Educational Management*
-

- Administration & Leadership, 50(6), 979–994.  
<https://doi.org/10.1177/1741143220962105>
- Hau, H. G., Selenius, H., & Åkesson, E. B. (2022). A preschool for all children? – Swedish preschool teachers' perspective on inclusion. *International Journal of Inclusive Education*, 26(10), 973–991. <https://doi.org/10.1080/13603116.2020.1758805>
- Hau, H. G., Selenius, H., & Björck, E. (2023). Exploring Swedish preschool teachers' perspectives on applying a self-reflection tool for improving inclusion in early childhood education and care. *Frontiers in Education*, 8, 1–10. <https://doi.org/10.3389/feduc.2023.982788>
- Hidi, S., & Renninger, K. A. (2006). The four-phase model of interest development. *Educational Psychologist*, 41(2), 111–127. [https://doi.org/10.1207/s15326985ep4102\\_4](https://doi.org/10.1207/s15326985ep4102_4)
- Howard J, McInnes K. (2013). The impact of children's perception of an activity as play rather than not play on emotional well-being. *Child Care Health Development*, 39(5):737–42. <https://doi.org/10.1111/j.1365-2214.2012.01405.x>
- Hughett, K., Kohler, F. W., & Raschke, D. (2011). The effects of a buddy skills package on preschool children's social interactions and play. *Topics in Early Childhood Special Education*, 32(4), 246–254. <https://doi.org/10.1177/0271121411424927>
- Hurme, T-R, Siklander, S., Kangas, M. & Melasalmi, A. (2023). Pre-service early childhood teachers' perceptions of their playfulness and inquisitiveness. *Frontiers Education*, 8, 1–12. <https://doi.org/10.3389/feduc.2023.1102926>
- Jing, C., Lin, T., Justice, L. M., & Sawyer, B. E. (2017). The social networks of children with and without disabilities in early childhood special education classrooms. *Journal of Autism and Developmental Disorders*, 49(7), 2779–2794. <https://doi.org/10.1007/s10803-017-3272-4>
- Kakkori, L. & Huttunen, R. (2014). Fenomenografia, hermeneutiikka ja fenomenografinen tutkimus. In: A.Saari, OJ. Jokisaari & VM.Värri, (Eds.). *Ajan kasvatus: Kasvatusfilosofia aikalaiskritiikkinä*. Tampere University Press, pp 273–280. Retrieved from [https://www.academia.edu/124036563/Fenomenologia\\_Hermeneutiikka\\_Ja\\_Fenomenografinen\\_Tutkimus](https://www.academia.edu/124036563/Fenomenologia_Hermeneutiikka_Ja_Fenomenografinen_Tutkimus)
- Kennedy, B. (2022). Good inside: A guide to becoming the parent you want to be. Harper Wave Keränen, V., Viljamaa, E., & Uitto, M. (2020). Touch in children's everyday peer relations in preschools. *Childhood*, 28(1), 86–102. <https://doi.org/10.1177/0907568220953514>
- Kesäläinen, J., Suhonen, E., Alijoki, A., & Sajaniemi, N. (2019). Children's play behaviour, cognitive skills and vocabulary in integrated early childhood special education groups. *International Journal of Inclusive Education*, 26(3), 284–300. <https://doi.org/10.1080/13603116.2019.1651410>
- Kirova, A. (2016). Phenomenology of inclusion, belonging, and language. In M.A. Peters (Ed.) *Encyclopedia of Educational Philosophy and Theory*. Springer, pp. 1–5. [https://doi.org/10.1007/978-981-287-532-7\\_97-1](https://doi.org/10.1007/978-981-287-532-7_97-1)

- Kuutti, T., Sajaniemi, N., Björn, P. M., Heiskanen, N., & Reunamo, J. (2021). Participation, involvement and peer relationships in children with special educational needs in early childhood education. *European Journal of Special Needs Education*, 37(4), 587–602. <https://doi.org/10.1080/08856257.2021.1920214>
- Lee, F. L. M., Yeung, A. S., Tracey, D., & Barker, K. (2015). Inclusion of children with special needs in early childhood education. *Topics in Early Childhood Special Education*, 35(2), 79–88. <https://doi.org/10.1177/0271121414566014>
- Locchetta, B. M., Barton, E. E., & Kaiser, A. (2016). Using family style dining to increase social interactions in young children. *Topics in Early Childhood Special Education*, 37(1), 54–64. <https://doi.org/10.1177/0271121416678078>
- Mann, L., Dall'Alba, G., & Radcliffe, D. (2007). Using phenomenography to investigate different ways of experiencing sustainable design. *Proceedings of the ASEE 2007 Annual Conference, USA*, 1559 (12), 1–29. <https://doi.org/10.18260/1-2--2340>
- Marton, F. (1981). Phenomenography—describing conceptions of the world around us. *Instructional Science*, 10(2), 177–200. <https://doi.org/10.1007/BF00132516>
- Mj, G., Rt, C., Hammond, M. A., Jm, G., & Kinnish, K. (1996). Immediate effects of mainstreamed settings on the social interactions and social integration of preschool children. *PubMed*, 100(4), 359–377. Retrieved from <https://pubmed.ncbi.nlm.nih.gov/8718991>
- Neitola, M., Pihlaja, P. & af Ursin, P. (2023). Explaining children's social relationships in early childhood: The role of parental social networks. *European Early Childhood Education Research Journal*. <https://doi.org/10.1080/1350293X.2023.2257912>
- O'Connell, J. C. (1986). Managing small group instruction in an integrated preschool setting. *TEACHING Exceptional Children*, 18(3), 166–171. <https://doi.org/10.1177/004005998601800303>
- Oprea, E., & Turda, E. (2025). Social skills development for the integration of preschoolers with asd in mainstream education. *European Journal of Special Education Research*, 11(6), 1–18. <https://doi.org/10.46827/ejse.v11i6.6243>
- Peltoperä, K., Vehkakoski, T., Turja, L., & Laakso, M. (2020). Pedagogy-related tensions in flexibly scheduled early childhood education and care. *International Journal of Early Years Education*, 31(3), 645–660. <https://doi.org/10.1080/09669760.2020.1778449>
- Pihlaja, P. (2022). Early childhood special education in Finland. In H. Harju-Luukkainen et al. (Eds.), *Special Education in the Early Years, International Perspectives on Early Childhood Education and Development* (pp. 13–30). Cham: Springer International Publishing. [https://doi.org/10.1007/978-3-030-91297-0\\_2](https://doi.org/10.1007/978-3-030-91297-0_2)
- Pinchover, S., Shulman, C., & Bundy, A. (2016). A comparison of playfulness of young children with and without autism spectrum disorder in interactions with their mothers and teachers. *Early Child Development and Care*, 186(12), 1893–1906. <https://doi.org/10.1080/03004430.2015.1136622>



- Renninger, K. A., & Bachrach, J. E. (2015). Studying triggers for interest and engagement using observational methods. *Educational Psychologist*, 50(1), 58–69. <https://doi.org/10.1080/00461520.2014.999920>
- Salminen, J. (2017). Early childhood education and care system in Finland. *Nauki O Wychowaniu*, 5(2), 135–154. <https://doi.org/10.18778/2450-4491.05.09>
- Siklander, P. & Kangas, M. (2020). Leikillisyyys esi- ja alkuopetuksessa: Miten sytyttää innostus oppimiseen? [Playfulness in pre and pre-primary education: How to trigger inspiration for learning?] InT. Kyrönlampi, K. Mäkitalo, & M. Uitto (Eds.) *Esi- ja alkuopetuksen käsikirja*. PS-kustannus, pp. 223–241. Retrieved from [https://www.researchgate.net/publication/343376529\\_Leikillisyyys\\_esi-ja\\_alkuopetuksessa\\_Miten\\_sytyttaa\\_innostus\\_oppimiseen](https://www.researchgate.net/publication/343376529_Leikillisyyys_esi-ja_alkuopetuksessa_Miten_sytyttaa_innostus_oppimiseen)
- Siklander, P., Ernst, J., & Storli, R. (2020). Young children's perspectives regarding rough and tumble play: A systematic review. *Journal of Early Childhood Education Research*, 9(2), 551–572.
- Siklander, S. & Tornberg, L. (2024). Leikillisyyys lasten ja kasvattajan vuorovaikutuksessa varhaiskasvatuksessa [Playfulness in children's and teachers' interaction in the Early Childhood Education]. InT. Kyrönlampi & M. Koivula (Eds.) *Leikin lumoa – Käsikirja varhaiskasvatukseen ja esiopetukseen* [Enhancement of play – Handbook for early childhood and pre-primary education]. Santalahti.
- Siklander, S.P., Kangas, M., & Randolph, J. (2024). Adult playfulness: Finnish teachers evaluating their own playfulness. Pre-print <https://doi.org/10.31219/osf.io/v253g>
- Siklander, S. & Kinnunen, S. (2024). A cultural-historical study of affordances for agency when children play in the city environments in Rome. Pre-print: <https://doi.org/10.35542/osf.io/ftuec>
- Stanton-Chapman, T. L. (2014). Promoting positive peer interactions in the preschool classroom: The role and the responsibility of the teacher in supporting children's sociodramatic play. *Early Childhood Education Journal*, 43(2), 99–107. <https://doi.org/10.1007/s10643-014-0635-8>
- Syrjämäki, M., Pihlaja, P., & Sajaniemi, N. (2018). Enhancing peer interaction during guided play in Finnish integrated special groups. *European Early Childhood Education Research Journal*, 26(3), 418–431. <https://doi.org/10.1080/1350293x.2018.1463908>
- Syrjämäki, M., Sajaniemi, N., Suhonen, E., Alijoki, A., & Nislin, M. (2016). Enhancing peer interaction: An aspect of a high-quality learning environment in Finnish early childhood special education. *European Journal of Special Needs Education*, 32(3), 377–390. <https://doi.org/10.1080/08856257.2016.1240342>
- Thagard, P. (2019). Social mechanisms. In Oxford University Press eBooks (pp. 48–76). <https://doi.org/10.1093/oso/9780190678722.003.0003>
- Trent, J. A., Kaiser, A. P., & Wolery, M. (2005). The use of responsive interaction strategies by siblings. *Topics in Early Childhood Special Education*, 25(2), 107–118. <https://doi.org/10.1177/02711214050250020101>

- Tsai, C. (2004). Conceptions of learning science among high school students in Taiwan: a phenomenographic analysis. *International Journal of Science Education*, 26(14), 1733–1750. <https://doi.org/10.1080/0950069042000230776>
- Tsai, P., Tsai, C., & Hwang, G. (2011). College students' conceptions of context-aware ubiquitous learning: A phenomenographic analysis. *The Internet and Higher Education*, 14(3), 137–141. <https://doi.org/10.1016/j.iheduc.2011.01.004>
- Vakil, S., Welton, E., O'Connor, B., & Kline, L. S. (2008). Inclusion means everyone! The role of the early childhood educator when including young children with autism in the classroom. *Early Childhood Education Journal*, 36(4), 321–326. <https://doi.org/10.1007/s10643-008-0289-5>
- Veijalainen, J., Reunamo, J., & Alijoki, A. (2017). Children's self-regulation skills in the Finnish day care environment. *DOAJ (Directory of Open Access Journals)*. Retrieved from <https://doaj.org/article/77c5a867f55c47359e494bb821742c75>
- Vieillevoys, S., & Nader-Grosbois, N. (2008). Self-regulation during pretend play in children with intellectual disability and in normally developing children. *Research in Developmental Disabilities*, 29(3), 256–272. <https://doi.org/10.1016/j.ridd.2007.05.003>
- Viljamaa, E., Karjalainen, S., Puroila, AM. (2024). Studying the embodied nature of children's narration. In: Hyry-Belhammer, E.K., Ylitapio-Mäntylä, O., Uitto, M. (Eds). *Narratives in Educational Research*. Springer, Cham, pp.103–119. [https://doi.org/10.1007/978-3-031-68350-3\\_7](https://doi.org/10.1007/978-3-031-68350-3_7)
- Vogt, F., Hauser, B., Stebler, R., Rechsteiner, K., & Urech, C. (2018). Learning through play – pedagogy and learning outcomes in early childhood mathematics. *European Early Childhood Education Research Journal*, 26(4), 589–603. <https://doi.org/10.1080/1350293X.2018.1487160>
- Walsh, E. (2000). Phenomenographic analysis of interview transcripts. In Bowden, J. A., & Walsh, E. (Eds.), *Phenomenography*. RMIT University Press, Melbourne, pp. 19–33.
- Äikäs, A., Pesonen, H., Heiskanen, N., Syrjämäki, M., Aavikko, L., & Viljamaa, E. (2022). Approaches to collaboration and support in early childhood education and care in Finland: Professionals' narratives. *European Journal of Special Needs Education*, 38(4), 528–542. <https://doi.org/10.1080/08856257.2022.2127081>
- Åkerlind, G. S. (2005). Learning about phenomenography: Interviewing, data analysis and the qualitative research paradigm. In Bowden, J. A., & Green, P. (Eds.), *Doing Developmental Phenomenography*. RMIT University Press, pp. 63–73. Retrieved from <https://researchprofiles.canberra.edu.au/en/publications/learning-about-phenomenography-interviewing-data-analysis-and-the/>



## Appendix

**Table 3:** The distribution of teachers' perspectives on triggers for children's interactions (n=20)

Teachers IDs	Research Question One				Research Question Two
	Implementing inclusive participation strategies	Using Small Group Activities	Content and Pedagogical Approaches	Support from the Environment and Resources	Teacher's Roles
ECST1	✓	✓			
ECST2	✓	✓	✓		✓
ECST3	✓	✓		✓	
ECST4	✓	✓			
ECST5	✓	✓		✓	✓
ECST6	✓		✓	✓	✓
ECST7	✓	✓	✓		✓
ECST8	✓	✓	✓	✓	✓
ECST9	✓				
ECST10	✓	✓	✓		
ECST11	✓	✓	✓	✓	✓
ECST12	✓	✓	✓	✓	✓
ECT1	✓	✓	✓	✓	✓
ECT2	✓	✓	✓	✓	✓
ECT3	✓	✓	✓	✓	
ECT4	✓	✓		✓	✓
ECT5	✓	✓	✓	✓	✓
ECT6	✓	✓		✓	✓
ECT7	✓	✓		✓	✓
ECT8	✓	✓	✓	✓	✓
<b>Total</b>	20	18	12	14	14