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Research Article

Teachers' experiences of promoting young students' language development in inclusive settings

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Abstract: Early education is essential in promoting language development for all young students. Teachers will meet 6-year-olds with various language skills in the preschool class in Sweden. They are expected to engage and involve all students in language education to promote each student's language development. The study aimed to explore teachers' experiences promoting language development among young students in inclusive settings. Semi-structured interviews were conducted with 17 teachers working with young students in the preschool class. All interviews were transcribed and analyzed with thematic analysis. Three themes were identified, representing the teachers' knowledge of language development, the pedagogical approach to promoting language development, and students with special needs in oral and written language. The results are related to Shulman's (1986, 1987) framework on teachers' competence in integrating content and pedagogical knowledge for successful teaching. Teachers in preschool classes might need education and in-service training to master young students' diverse language abilities and needs.

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Inclusive education; Preschool class; Language development; Teachers; Thematic analysis

Introduction

Reading and writing are crucial in education and have social and democratic values (e.g., United Nations Educational, Scientific and Cultural Organization [UNESCO], 2018). Students with good reading ability have better opportunities to pass elementary school than those with limited reading ability (Duncan et al., 2007; Hulme & Snowling, 2016). Consequently, reading and writing are related to further education and employment opportunities (de Beer et al., 2014; Hulme & Snowling, 2016). Students who struggle with reading and writing are at risk of marginalization (Pickard, 2021; World Literacy Foundation, 2012). With the knowledge that reading and writing are related to students' early oral language and language teaching (Castles et al., 2018), early education is essential in promoting language development for all young students.

Among young students, education needs to focus on oral language and pre-reading skills to encourage learning to read and write (Lonigan & Shanahan, 2008). Oral language is an ability including vocabulary, grammar, and listening comprehension (Language and Reading Research Consortium, 2017), and pre-reading skills refer to alphabet knowledge, phonemic awareness, knowledge about letter-sound correspondence, and concepts about prints (Suggate et al., 2018). Comprehensive research demonstrates that teachers must offer young students explicit teaching on phoneme-grapheme correspondence to support them in learning to read, especially students at risk of reading difficulties (Castles et al., 2018; Melby-Lervåg et al., 2012). More seldom, oral language is highlighted, but longitudinal research has also revealed that students with mature oral language are better equipped for developing pre-reading skills (NICHD Early Child Care Research Network, 2005). Subsequently, young students with limited oral language should also receive systematic oral language education to support those at risk of future reading and writing difficulties (Genesee et al., 2005). In general, teaching focusing on pre-reading skills will help

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the students in developing word decoding skills, whereas oral language is emphasized as essential for reading comprehension (Castles et al., 2018; Hulme & Snowling, 2016; NICHD Early Child Care Research Network, 2005) and writing (Dockrell et al., 2019; Kirby et al., 2021).

Early language education is reported to be affected by the teachers' content and pedagogical knowledge (Hammond, 2015; Piasta et al., 2020). The teachers must also know how to integrate these two types of knowledge in language education for young students (cf., Evens et al., 2018). Therefore, the teachers need to understand how language is structured and related to each other (Piasta et al., 2020). In addition, they should know efficient strategies to promote students' oral language and pre-reading skills to develop their language abilities. Such knowledge also includes competence in teaching pre-reading skills in small groups to students at risk of reading and writing difficulties (Kaminski et al., 2014; Zucker et al., 2013). Hence, teachers should be aware of and understand the characteristics of different language difficulties to meet the needs of students (Dockrell et al., 2017). However, many teachers cannot identify and struggle with supporting students with special needs in language abilities because of a lack of training and education.

Although oral language is fundamental for reading and writing (Lonigan & Shanahan, 2008; NICHD Early Child Care Research Network, 2005), efforts to develop young students' oral language do not have to exclude education in pre-reading skills. For example, young students with specific language disorders are demonstrated to enhance their listening comprehension, vocabulary, oral narrative skills, and phonological awareness after one-hour individualized sessions combined with language activities at home for six weeks (Munro et al., 2008). These students will also develop phonemic awareness similar to typical speech and language developing peers when offered 20 hours of individual teaching on phonemic awareness and letter-sound correspondence (Gillon, 2000). Furthermore, intervention studies demonstrate that oral language, phonemic skills, and alphabetic knowledge can be enhanced among students with weak oral language (Bowyer et al., 2008; Fricke et al., 2013). According to Bowyer et al. (2008), about 50% of the students needed additional support to develop oral language and pre-reading skills after a 10-week intervention. Also, Fricke et al. (2013) reported that the 10-week phoneme awareness and alphabetic knowledge intervention was too short, but the young students enhanced these skills during these weeks. The oral language was supported during a more extended period (30 weeks), and Fricke et al. (2013) demonstrated that the students' oral narrative skills were efficiently enhanced and maintained. Findings by Gillon et al. (2020) point in the same direction since young students with speech and language difficulties improved their phoneme awareness and vocabulary after half-hour lessons offered four times a week for ten weeks. Gillon et al. stated that the students needed additional support to transfer these skills into word decoding and spelling.

According to Costantino-Lane (2021), some teachers believe that young students must first master the oral language before practicing pre-reading skills such as phonemic awareness. Therefore, teachers consider social interaction, play, and conversations fundamental in young students' language development. Nevertheless, this belief should not be regarded as exceptional because early childhood education has had a tradition of literacy-related play and shared storybook reading but converted to more academic achievements focusing on reading education due to national policies (Saracho, 2017). These policies have been criticized for putting too much effort into academic achievement instead of students' play and social development (Brown, 2018; Costantino-Lane, 2021).

Pre-reading skills have received more attention in Swedish preschool classes in the last ten years (cf., Axelsson et al., 2020; Norling, 2019). The preschool class is the first compulsory year within the Swedish school system, and students start preschool class the year when they turn six. According to the Swedish national curriculum (Swedish National Agency for Education, 2018), there are no explicit national curriculum goals for language education in the first year, but the teaching should cover content such as;

- rhymes, jingles, and other word games
- letter and other symbols to convey a message
- discussing, listening, and asking questions

- expressing thoughts, opinions, and arguments
- words and concepts that express needs, emotions, knowledge, and opinions
- discussing different types of texts
- digital tools for communication
- safe and responsible communication, including digital situations

However, without specific goals for language education in the preschool class, the content of early language education can vary with the individual teachers' beliefs and knowledge of early language education. The preschool classes in Sweden are reported to be equipped with children's books, name signs, and alphabet pictures (Hofslundsengen et al., 2020). Toys are also prevalent (Axelsson et al., 2020), whereas digital tools for supporting pre-reading skills are less accessible (Hofslundsengen et al., 2020).

Teachers will meet young students with various language skills (Norbury et al., 2016; Sandberg et al., 2015). Some young students might be able to read (Lundberg et al., 2012) and tell stories (Massonnié et al., 2022). Others might have a limited vocabulary (Norbury et al., 2016), weak listening comprehension (Massonnié et al., 2022), difficulties retelling stories (Massonnié et al., 2022; Norbury et al., 2016), a limited alphabetic knowledge (Sandberg et al., 2015), or weak phonemic awareness (Lundberg et al., 2012). They might not be developmentally ready for formal reading education even though teachers are expected to provide them with early education, preparing them for developing good reading ability (Saracho, 2017). Consequently, in inclusive education, the teachers should meet the needs of young students with various language abilities. Therefore, they are also expected to engage and involve all students in language education to promote language development. The teachers face a complex task, but each child needs to be given good learning conditions with their peers. Therefore, the aim was to explore teachers' experiences promoting language development among young students in inclusive settings. The study had the following research question:

- How are the teachers understanding of promoting language development expressed?

Method

A qualitative research approach was applied as the aim was to explore the teachers' experiences in promoting language development among young students. To capture the participants' experiences and understanding of a phenomenon, such as students' language development, interviews as a data collection method and thematic analysis as an analysis method were considered suitable (cf., Braun & Clarke, 2013).

Context of the Study

The current study was conducted among teachers working with students in preschool classes in Sweden. The students will start in a preschool class the year they turn six, which will be their first compulsory year in the Swedish school system. According to the Swedish national curriculum (Swedish National Agency for Education, 2018), play is valued of great importance, and the educational activities in the preschool class should stimulate development and prepare the students for future learning. Education is free, and parents can choose a school (Swedish Education Act, 2010:800).

About 8% of the preschool class students are reported to have special needs (Swedish Schools Inspectorate, 2021), and 25% have another home language than Swedish (Swedish National Agency for Education, 2021). The teachers who work in preschool classes are responsible for meeting the needs of all children (Swedish Education Act, 2010:800), which means that they encounter a diversity of students, such as students with disabilities and various cultural and language backgrounds.

Participants

The participants were 17 female teachers working with 6-year-old students in preschool classes in Sweden. Ten of the teachers had a preschool teacher's degree, six had a teacher's degree, and one had no pedagogical degree. Two had also completed a special educator teacher degree among those with a

teacher's degree. The teachers had worked between 3 and 40 years (*M*=20, *SD*=11) in preschool or elementary school. Their experience in educating 6-year-olds was between 3 and 21 years (*M*=12, *SD*= 6). During the current study, they were teaching between 13 and 58 students. Some teachers were solely responsible for a preschool class. Others educated larger groups of children in collaboration with 2 to 4 teachers and elementary school assistants.

Participant Selection and Recruitment Process

We used a purposive sampling strategy for the study (cf., Braun & Clarke, 2013). Therefore, we asked teachers interested in a new teaching material focusing on phonemic awareness to participate in the present study. During the second half of 2021, about 35 teachers had shown interest in trying the material among young students in a preschool class in Sweden. The teachers had not tried the new material, and the current study was based on their experience working in the preschool class. None of us had a previous relationship with the schools or the teachers. Further, we had an independent relationship with the producers of the teaching material.

An information letter about the present study was sent to the teachers. They were asked to participate in an interview focusing on teachers' experiences of their work with language development among students in the preschool class. In addition, we informed the teachers that we are not involved in the work with the teaching material and that we are independent researchers interested in teachers' experiences working with language development among young students. Seventeen teachers agreed to participate in the present study and scheduled themselves for an interview. Before the interviews, we informed the teachers about the study and provided information on the ethical considerations. We promised to maintain confidentiality regarding the content of each interview, and consent was sought from all participants.

Data Collection

We developed a semi-structured interview guide according to the aim of the present study. Initially, the participating teachers were asked about their teaching experiences, education, and the number of teachers and students in their group. After that, the interview guide consisted of eight questions about language skills teachers consider essential to work with among young students and how they enhance students' language abilities. With follow-up questions, the teachers were sometimes asked to elaborate on their descriptions or to give more detailed examples. Each interview lasted between 15 and 32 minutes (*M*=25 minutes), and the length of the interviews varied according to teachers' individual experiences and knowledge of working with young students' language development. All interviews were audio-recorded and performed on Zoom in September and October 2021.

Analysis

All interviews were transcribed, and we performed an inductive thematic analysis (cf., Braun & Clarke, 2006, 2013) without a theoretical framework or a coding guide. We were guided by our academic background in psychology and pedagogy and previous experiences in reading and writing research and work as special education teachers.

Initially, we read through the materials and familiarized ourselves with the transcriptions (Braun & Clarke, 2006, 2013). The first author performed a semantic, complete coding on all transcribed interviews resulting in a long list of codes. These codes were then organized and interpreted to identify how teachers have experienced promoting language development among young students in inclusive settings. The first author suggested an initial thematic map of the codes sorted into potential themes. Codes and themes were discussed with the second author to enhance the depth of the interpretation (cf., Braun & Clarke, 2022). We also examined and discussed whether the analysis reflected the individual teachers equitably. We strived to generate themes without researcher bias and existing theory. After that, we defined the themes and gave them names. All themes are exemplified with quotes from the participating teachers. The teachers were

given pseudonyms to strengthen confidentiality. For examples of the analysis process from data extract to themes, see Table 1.

Table 1. Example of data extract, condensed data extract, code, and theme from thematic analysis of interviews with teachers

Data extract	Condensed data extract	Code	Theme
When we have read aloud, it can be with or without pictures to create listening comprehension (Betsy)	Reading loud for practicing listening comprehension.	Listening comprehension	Teachers' knowledge of young students' language development
It's also about interest; of course, it's about finding things that arouse their interest. As a teacher, you can adapt as much as you like, but it's difficult if the students aren't interested. (Hanna)	Adaptations are not working without students' interests.	Interesting for students	Teachers' pedagogical approach to promoting language development

Results

We identified three themes reflecting the teachers' experiences promoting language development among young students in inclusive settings in Sweden with the thematic analysis. These themes represent the teachers' knowledge of language development, especially pre-reading skills, among young students and how they used different pedagogical approaches to promote language development. Also, teachers supported students with special needs in oral and written language by applying different pedagogical strategies.

Teachers' Knowledge of Young Students' Language Development

Our thematic analysis resulted in one theme constructed on teachers' knowledge of young students' language development. Their understanding varied from being confident and competent in how students develop different language skills to insecurity or unawareness about what language skills young students should learn to enhance oral and written language abilities.

Early language education was based on the teachers' formal competence and experience in students' language development. Teachers with many years of experience educating 6-year-olds had acquired tacit knowledge about young students' language development. They identified a general level of language ability among the students in their groups, and they thought the curriculum provided endless language education opportunities. In addition, these teachers were aware of how teaching materials are structured to develop students' pre-reading skills. They expressed how they could distinguish specific language skills and difficulty levels within teaching materials. Accordingly, they explained how explicit materials could suit students with varying pre-reading skills and how they could use materials to promote language development.

> I use a colleague's material and choose her way, so I haven't had deeper thought. (Gina)
>
> I think it's tough because I don't have the experience to see children's language development yet, and I'm pretty clear about that. I'm not afraid to ask for help. (Cathy)
>
> When I went to teacher training, it was very… we got very poor education on how to work with writing and reading. It was really flawed. (Noel)
>
> Nowadays, there is more focus on whole word reading in early reading books. Students must [according to the curriculum] read whole words. - - - But I haven't worked that way. I've been more prone to sounding in my profession, and now I've confirmed that those who have difficulties should practice sounding words. (Liza)

Moreover, some teachers described the importance of in-service training, teacher network, and support from colleagues to develop their language education. Others expressed that they lacked teaching experiences and felt insecure when planning and teaching language skills to young students. They expressed the need for more guidance from the national curriculum. Consequently, the content in less competent teachers' language teaching was mainly based on others' recommendations, trends in using

teaching materials, or demands for the municipality to work with a specific method. They were often unaware of what specific language skills were taught in different language activities. Sometimes, they could not see the need or importance of teaching particular language skills to young students and lacked an understanding of the language structure and complexity. According to their description, language education seemed unsystematically offered to the students. Due to their limited knowledge, they could not efficiently support students in developing knowledge about the Swedish alphabet (including 9 vowels and 20 consonants where the 26-letter Latin alphabet is used plus the three additional letters Å/å, Ä/ä, and Ö/ö), phoneme-grapheme correspondence, or communication skills. For instance, they described how they followed the order in the alphabet and presented letters without consideration of difficulty or frequency in the Swedish language. In contrast, those with more formal competence and experience stated the importance of starting with letters that are easy to discriminate, both auditorily and visually, and possible to blend into short words consisting of three letters. Besides practicing alphabetic knowledge and phonemic awareness with young students, the teachers focused on vocabulary, listening comprehension, oral narrative skills, and literacy knowledge. They also mentioned activities related to phonological awareness, such as rhymes, syllables, and alliteration. Some teachers did not teach phoneme-grapheme correspondence, and they considered teaching students phonemes more critical in preschool class than phoneme-grapheme correspondence.

> When we introduce letters, we start with two-word, three-word, and four-word sounds. Automatically, some letters are best suited. (Quinnlyn)

> We have worked on A, B, C, D, and E. We have made five letters so far. (Cathy)

> The children listen to how many phonemes there are in a word and then put markers for each phoneme they hear. It becomes visible to the children. Because otherwise, the phonemes are very abstract for the children, so it must be something quite concrete. (Elly)

The teachers' understanding of the structure of the Swedish language was reflected in how they described the content of their teaching. Some teachers allowed students to practice specific language skills to develop more complex skills such as communication skills. For instance, the teachers planned lessons where the students were asked to do presentations, listen to each other, and ask questions. These lessons could be prepared by teaching storylines, specific vocabulary, and rules for communication. Conversely, other teachers believed language should be taught as a whole and therefore not focused on specific language skills. There were also teachers without thoughts about how students acquire written and oral language abilities. For example, their statements reflect that they are unaware of how students learn to read and how they, as teachers, could support students in extending vocabulary to build listening comprehension and narrative skills. Nevertheless, the interviewed teachers agreed that working with language is essential, and the students can practice communication during the whole school day.

Some teachers emphasized the importance of teaching phoneme-grapheme correspondence several times weekly with a systematic and explicit approach. They thought they could notice the effect of such teaching. Consequently, without reasonable tuition on phonemic awareness in the preschool class, the teachers have experienced that many students will need support from special education teachers to learn to read and write in the following school years. Also, teachers emphasized that teaching language takes time. In addition, as a teacher, you must accept that students will develop differently as young students are heterogeneous in their language development. Therefore, teachers must realize that language needs vary from student to student and year to year. For instance, in some years, students have progressed well in their language development. Teachers will also meet students with weak oral language skills and phonemic awareness in other years. However, statements from those with limited teaching experience revealed that they had difficulties identifying the needs of each student.

> Last year, we used books suitable for linguistically proficient students who needed a little more challenges. This year we've gone back to basic, back to the Bornholm method, and started from the beginning. (Alice)

> You mustn't forget repetitions. You shouldn't go too fast forward. It's very important to rehearse. (Penny)

> Teachers present letters very quickly, and the children have to put the letters together. This means that teachers sometimes forget to practice the first and last sounds, divide compound words, practice phonemes and rhyme (Isabel)

Teachers' Pedagogical Approach to Promoting Language Development

Our analysis revealed that the teachers' pedagogical approach to young students' language development reflected their diverse perspectives on planning and implementing language activities. Good relationships with students and variation in language education were highlighted. Their different starting points for language education mirrored their pedagogical approaches to promoting students' language. Interests and curiosity among the students were used when planning language teaching. The teachers explained that they prepared education for the students to enjoy within the preschool class. Early education was told to lay the ground for school motivation. In addition, the teachers believed their teaching engagement was essential for students learning. They articulated the importance of making teaching meaningful to the students, which was related to all students' participation. Therefore, the teachers emphasize student involvement as fundamental for language education. Accordingly, the teachers planned language education based on the students with the lowest language skills. They tried to relate their teaching to the interests of the students. Therefore, the teachers allowed students to choose assignments by their interests and motivation. Teachers made education meaningful for talented and lingually gifted students by giving these students additional assignments that challenged the students' language skills.

> Digital tools and various apps capture the children who are difficult to motivate. I can show the children how they can work with the language with an app. (Elly)

> I think it's a lot of joy. You should consider it fun too. That you're doing something with pleasure. (Liza)

> We play, so it gets fun. Above all, it should be something that feels positive for the students, and if it doesn't, we should try to find an adaptation. (Joanne)

Teachers believed variation in language education is fundamental due to students' different learning styles and to motivate and stimulate students in language development. Therefore, the teachers combined teacher-led activities with collaborative language education. Also, they tried to meet the needs of each student by mixing materials and methods and offering the students possibilities to use different senses. For example, they used drama, music, videos, computer programs, games, puzzles besides circle time, and traditional tuition with paper and pen. Teachers organized different stations to have the possibility to manage small groups of students when giving explicit teaching on pre-reading skills. The teachers expressed how they used guided play to promote students' engagement in language education, especially in groups of students with limited language skills who quickly drop their motivation for language education. Free play was considered a valuable approach to stimulate communication between students. Thus, teachers also thought the free play was challenging for students with limited oral language skills.

> We've been detectives looking for sounds, looking for letters. We've put letters together and reasoned about which word it will be. (Hanna)

> The children get to trace pieces of wood that represent a letter. I've got a small box of sand, and they can try to make the letter in sand. And then, I also have a worksheet. I'm a bit divided, some can write, and some think it's a plague and pain. Still, they write the letter on a piece of paper I've prepared and copied. (Gina)

> Music reinforces the feeling for language because they hear it better. The word or the rhythm of the meaning. I support the feeling with a rhythm instrument. (Felicia)

Some teachers planned and implemented language lessons focusing on explicit teaching and teacher-led discussion to encourage the students' language awareness and learning. Such teachers mentioned the importance of offering language education to small homogeneous groups of students, whereas others highlighted the importance of mixing students with different language skills to promote development. The latter meant that students learn more from peers than from the teachers.

> In the whole group, we try to come up with rhyming words on, for example, car (Swedish: *bil*), and then we discuss why does not rhyme bus (Swedish: *buss*) on the car, but the file (Swedish: *fil*) does? - - - So, I use much cooperative education as well when the children sit and work together. Once a day, we work with different stations, and the children work in four different groups. (Alice)

> I'm striving for clarity and structure and much encouragement. For students that I find difficult to reach, I usually really make an effort and try to like them and encourage every little positive hint, like this "How nice you hold the pen" (Noel)

For the past three years, teachers in Swedish preschool classes have been required to make compulsory assessments of students' language abilities (Swedish National Agency for Education, 2019). Teachers in the current study brought up these assessments. However, they had different attitudes and approaches to assessments to promote language development among young students. They could see the usefulness of making the group's needs visible with the assessment and thereby use the result as a basis for their teaching. Still, they also thought the individual assessments of every student take time away from regular education, and they were unsure whether the assessment benefitted their teaching. However, results from language assessments were also regarded as necessary to divide the students into homogenous small-group. They also underscored the need for valid tests and that the compulsory assessment was not efficient enough to identify students at risk of future reading and writing difficulties. Therefore, some of the teachers added phonological tests to avoid planning teaching that is not appropriate concerning the needs of the students.

> We look a little at how far they have come in their linguistic consciousness, some not far at all. Then we put together those who haven't come so far into a group. We do this so everyone will be at about the same development level as the others in a group. (Diana)

> Everyone passed the compulsory evaluation material, and only one child was a borderline case. Still, 13 out of 27 failed when I made phonological tests with them. I thought everyone would be okay if I had only used the compulsory evaluation material. But it turned out they were not. - - - If we look back at those who have reading and writing difficulties in the fifth grade, they've already been weak on the phonological test in the preschool class. (Kate)

Students with special Needs in Oral and Written Language Development

According to the teachers, some students have special needs in language education. These students might have a language disorder, a home language other than the school language, or challenges with social relationships. Teachers' statements indicated that it could be a considerable challenge for a teacher to succeed in including these students in language education. For instance, the teachers mentioned the challenge of involving or engaging students with special needs in the teaching. Furthermore, another challenge highlighted by the teachers is students who cannot discriminate different phonemes from each other, which makes it difficult for the teachers to develop the students' phoneme awareness and knowledge of phoneme-grapheme correspondence in the classroom.

The teachers had two main pedagogical strategies for students with special needs in language development. One of these main strategies was giving the students individualized language development support. The other main strategy was to strive for increased participation in language activities by increasing the adjustments in the classroom. When the teachers offered individualized support to students with special needs, they tried to identify how the individual student learned and supported the student with additional tuition besides regular education. Individualized support was sometimes specified in a written action plan for the student. According to the Swedish Education Act (2010:800), such a plan is meant for students at risk of not achieving knowledge requirements despite additional adjustments (Swedish National Agency for Education, 2014, 2015). An action plan presupposes evaluation of the teaching and the student's difficulties, and the efforts must be clearly stated. Teachers in the current study received support from special needs teachers or speech therapists in making the action plans. The special needs teachers and the speech therapist could also support and guide the teachers in promoting individualized support to students with special needs. In addition, the parents were asked to support the students at home, and sometimes the teachers provided the parents with advice on practicing a specific language skill with the child. However, some teachers thought they did not have time to give students individualized support or that the students were too young for an action plan in early language education.

> If we notice a student has difficulties, we raise it at student health team meetings. These include a special educator, principal, school nurse, and school counselor. They decide how the student should be treated and what resources are needed. (Elly)

> When a child scores low on phonological tests, we make it very clear to the parents that their children may need support to achieve the goals in year 3. It's been very successful because these children have cached up with the reading when they come to first grade. It feels like it has made the parents take it seriously, too. (Kate)

When the other main pedagogical strategy was expressed among the teachers, there were statements about how they were striving for increased participation in language activities. The teachers expressed how they attempt to promote all students' learning and involvement in the classroom. For example, the teachers believed adjustments such as short and intensive instructions and visual aids would support participation in language education. Therefore, they used guiding and supporting questions to encourage the students' learning and communication and made them more noticeable in the classroom. Furthermore, the teachers consider the physical placements of the students to enable participation, and they plan for pedagogical and organizational differentiation to meet the needs of the students. For example, the students could be divided into smaller groups for shared book reading. Some students need pictures and shorter texts, whereas others can listen to more complex stories and create their inner images. Consequently, in smaller groups, the teacher could meet the student's proximal zone for learning and increase participation in language activities.

The teachers also believed that students who have not reached so far in language development should be able to choose language assignments to become more engaged and motivated. Language education must include play and excitement for these students to encourage them to participate in language activities. However, those teachers who did not strive for all students' participation assumed that some students would not be motivated for language assignments due to their special needs. For instance, the teachers thought that the students with special needs should have the opportunity to play instead of attending the language lesson. Still, the teachers did not reflect on the student's lack of language education and participation.

> We have children with special needs. They get involved in their way, and sometimes you have to adapt a little. (Mary)
>
> All children want to do the same thing. They also want the same material, and we let them have it, but then we adapt the assignment to each child. (Quinnlyn)
>
> The student may prefer to build with Lego or play with something else than doing language activities, so you have to look after the child's interest. It's not a disaster if the child does not think these [language activities] are fun right now. (Betsy)
>
> Children with a home language other than Swedish can teach the other children in the group to learn to count to five in their first language. - - - They became so proud, and that's how we want it to be. We highlight all languages represented in our group so that each language is important and valuable. (Olga)

The current study explored the teachers' perspective on how young students' language development can be promoted. According to the thematic analysis, teachers' understanding of language development and pedagogical approaches were central to promoting language development among all young students in inclusive settings. However, young students with special needs in oral and written language development might need individualized support besides regular education. In addition, teachers experienced that inclusive education gave these young students more motivation to learn with their peers. The language activities must be meaningful to the students. The teachers believe that inclusive language education should be based on the students with the weakest language skills, whereas language-gifted students require additional assignments. The teachers expressed that they had to differentiate language education to offer all students appropriate language-related challenges.

Teachers' Knowledge Promotes Young Students' Language Development

Already, in the 1980s, teachers' competence in integrating content and pedagogical knowledge was argued to be vital for students' education (Shulman, 1986, 1987). Content knowledge refers to the teacher's knowledge of a subject's basic concepts and principles (e.g., written language development) and awareness of what facts students must learn (e.g., alphabet). In addition, the teacher needs to understand what makes the subject comprehensible for students. For instance, what makes the written language easy or hard to learn, and what kind of analogies, illustrations, and examples will support the young students' language education. Hence, teachers must consider all students' thinking and learning to organize and manage successful teaching (Shulman, 1986, 1987). Similarly, UNESCO (2022) has also emphasized the importance of teachers having subject knowledge and appropriate teaching strategies to promote educational

achievement among students.

Our results point in the same direction as Shulman's (1986, 1987) framework that teachers' pedagogical approaches and content knowledge about oral and written language development promote language development among young students. However, the participating teachers did not explicitly mention integrating their content and pedagogical knowledge as crucial for early language education. Still, through their examples of teaching young students oral and written language, the integration of such knowledge was expressed in the interviews. Previous research has also stressed the importance of teachers' understanding of pedagogy and language development for successful early language education (Hammond, 2015; Piasta et al., 2020). Accordingly, teachers need the competence to integrate these two types of knowledge to promote language development among young students (cf., Evens et al., 2018).

However, our results also revealed that some teachers seemed to have a weak understanding of students' language development although they had a teacher's degree. Similarly, Dockrell et al. (2017) reported that many teachers could not identify and struggle with supporting students with special needs in language development. In the current study, teachers' descriptions of their language education gave a picture of unawareness about students' oral and written language development and what type of language skills should be expected from 6-year-olds. Compared to the teachers in the study by Dockrell et al. (2017), the teachers in our study were also unaware of typical language development and not only students with special needs in language education. They seem to lack content knowledge and therefore tend to struggle in early language education. The lack of content knowledge in child language development was sometimes explicitly put forward by themselves. They tried to develop their language teaching by asking more experienced colleagues for guidance or attending in-service teacher training. Thus, some teachers did not express that they lacked content knowledge, but their descriptions indicated that their teaching did not support students' language development. For example, specific pre-reading skills such as alphabetic knowledge and phoneme awareness could be presented to make it difficult for students to comprehend the structure and meaning of written language. Such teachers introduced the letters as they come in the alphabet (A, B, C…) rather than the Swedish orthography. In Swedish, some consonants are easier (e.g., S, L, M) for students to start with than others (e.g., C, D, H, K, P) (cf., Alatalo, 2011). There are also more prevalent vowels (e.g., A, E, O, I) than others (e.g., Y, Å, Ö) in the Swedish written language. Consequently, some letters are more appropriate in early reading education in Swedish.

Early Language Education in Inclusive Settings

Although Shulman's (1986, 1987) framework for integrating pedagogical skills and content knowledge in teaching was formulated before the Salamanca Statement (UNESCO, 1994), he argues for teaching meeting the needs of all students. Hence, teachers must find representation that works as a practical example for all students. Teachers must also choose how they should give instructions and in what way these may need to be adapted to work for all students in the classroom. In addition, he underlines the importance of tailoring the teaching to the students' backgrounds, interests, motivation, and abilities. In the current study, teachers also explain how education can be more meaningful to students, especially those with special needs, when their interests, motivation, and language abilities are considered. Teachers also relate meaningful teaching to participation. To encourage students' participation, the teachers plan for pedagogical and organizational differentiation to meet the needs of the students. They also explain how important it is for students with special needs to use the same materials as their peers in the classroom to give them the feeling of belonging to the group and being involved in the language activities.

In the framework by Shulman (1986, 1987), fundamental aspects of inclusive education such as presence, participation, and achievement (cf., Ainscow, 2020) are not presented. Still, he is not discussing segregated solutions for students struggling at school. He argued that teachers must know about student diversity and reflect on their teaching to promote learning. The achievement aspect is prominent in the framework. Similarly, teachers in the current study focus on language achievement when they support students with special needs by offering additional individualized support. Their strategy to increase participation was also intended to support students in becoming more motivated to be involved in

language activities and learn alongside their peers.

Strengths and Limitations

The study was conducted during the Covid-19 pandemic; therefore, all interviews were performed using the Zoom digital meeting program. Not interviewing people in the same room and face-to-face might have limited our opportunities to create a good interview climate. Still, zoom enabled us to reach participants from all over the country. The participating teachers worked in municipal and privately owned schools in metropolitan and rural areas. We believe that the teachers tried to answer to the best ability our questions and were interested in sharing their experiences working with students' language development in the preschool class. In addition, we perceived that after about twelve interviews, data saturation was achieved. However, we chose to conduct the additional interviews scheduled with teachers. These provided additional concrete examples of the teachers' experiences promoting language development among young students.

The selection of teachers working in preschool classes consists of those who have shown particular interest in working with visual support in phoneme learning. Consequently, they may not be representative of teachers working with younger students. Thus, according to the interviews, the teachers work in varied ways to promote language development and did not place any particular emphasis on visual support in students' language development. They may be a group of teachers looking for different pedagogical strategies to use in their teaching to meet the needs of young students. Further, it is also possible that they are interested in developing their language education by using new materials and methods.

The first author was responsible for the thematic analysis, which was reviewed and discussed with the second author. Such an analysis process can be considered to strengthen the depth of the study (cf., Braun & Clarke, 2022). However, the transferability of the study must be viewed in its context and the sampling procedure. In addition, the study was conducted in Sweden among teachers working in a preschool class with students turning six years old. This class is the first year of compulsory schooling in Sweden, which might differ from school systems in some other countries where students are younger when they start compulsory education and have other legal rights to special educational support. Besides, the Swedish curriculum has no specific language goals that must be achieved in the first year, which might differ from national curriculums in other countries. This means that teachers may have different expectations regarding the content in language teaching in different countries. The national policies can guide what should be considered necessary in early language teaching and limit teachers' use of pedagogical strategies. Consequently, it is conceivable that teachers in Sweden and other countries might have different experiences promoting students' language development as their conditions and requirements for teaching in inclusive environments might vary. Thus, we can assume that teachers should have competence in students' language development and pedagogical strategies. The current study results might not be unique for the participating teachers as teachers are expected to promote language development among younger students. Similar findings have also been previously reported (Hammond, 2015; Piasta et al., 2020.

Implications

Most students learn to read and write without teaching (Ehri et al., 2001; Gough, 1996). Thus, explicit language education is crucial for students at risk for reading and writing difficulties (Castles et al., 2018; Genesee et al., 2005; Melby-Lervåg et al., 2012). These students need competent teachers to develop oral language and pre-reading skills that will support them in learning to read and be readers with good comprehension. According to the current study and previous research (Hammond, 2015; Piasta et al., 2020), early language education requires teachers with pedagogical and content knowledge of young students' oral and written language development. Therefore, students meeting teachers without such knowledge might lose the education they need to prevent future reading failures. In addition, more language-gifted students are at risk of being under-stimulated and losing interest in reading and educational motivation

(cf., Barbier et al., 2022).

School leaders should also be aware of the importance of recruiting competent staff in language development and pedagogy. Previous research has shown that it takes several years for a teacher to develop solid knowledge (Podolsky et al., 2019). It presupposes that the teacher has the opportunity to work with students in the same grade over a more extended period, which is an organizational aspect the school leaders should be aware of. In addition, collegiate learning has proven to develop teaching effectively (Podolsky et al., 2019). Therefore, school leaders should create time for collegial learning, especially when newly graduated teachers are employed. Generous and experienced teachers might have much to contribute to developing colleagues' language teaching. Without content knowledge of children's language development, a pedagogically skilled teacher will still have significant challenges in promoting language development.

Besides the school leaders striving to allow teachers to develop knowledge and teaching, it is essential that teacher education and in-service teacher training focus on how content and pedagogical knowledge can be integrated into early language education to promote all students' language development. Therefore, we suggest further studies on how collegial learning and teacher training can enhance teachers' pedagogical and content knowledge to encourage all students' language development. There is also a need for further studies on how teachers integrate their content and pedagogical knowledge in the inclusive classroom.

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Research Article

Is there a place for children in the making of public policy? Insights from the research evidence

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Abstract: Article 12 of the UN Convention on the Rights of the Child stipulates that children have a right to express their views with this article being one of the most frequently cited principles in the convention. This scoping review summarises the existing research evidence on how children participate in the making of public policy. This paper concludes that a plethora of practical guidelines and gray literature are available addressing children as policy-making partners, but the empirical research around the subject is very rare. Children's participation should be planned prior to any planned public policy reforms – and to be supported by appropriate academic research integrated into the different stages of the policymaking processes. If policymakers are willing to develop mechanisms for children's participation in the policy cycle, children's role and agency will be clarified. It seems that there is a need for new sensemaking in terms of how adults treat the value of children´s participation and how to include children in the policymaking process around the subjects that matter to them. Participatory practices should be co-created with children, not for them.

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Introduction

From the perspective of everyday life, children´s participation in society takes place in different contexts. In everyday life, children express their views in their family life, at day care centres, schools, when using social and health care services, through their hobbies and among their friends (Thomas, 2007). Children´s views are also emphasised in other contexts, for instance as consumers of goods as well as increasingly in the making and development of public services through co-creation and co-design. This paper addresses children´s participation in the making of public policy and elaborates further the ongoing scholarly discussion and debate about children´s rights and children´s participation (e.g., Arce, 2015; Bosisio, 2012; Byrne & Lundy, 2019; Cassidy, 2016; Giesinger, 2019).

The notion of human participation is rooted in the principles of democratic societies. Participation is deeply incorporated in the *United Nations Sustainable Development Goals* (SDGs) and in the *United Nations Convention on the Rights of the Child* (CRS). The SDGs consist of 17 Goals (and 169 targets) which aim to contribute to the international commitment to achieve worldwide sustainable development in its social, economic, and environmental dimensions by 2030. Glass and Newig (2019) have pointed out that the issue of governance is embedded in the domain of the SDGs in a specific way: it is essentially about the diversity of participating actors contributing to common goals and the importance of participation in policy making, policy implementation and service delivery. Their argument rests upon the idea that participation is useful, entailing that it is connected to the drafting of policy proposals and actions. Further, participation must be linked to strategy formulations and academic research that are effective in terms of mutual learning and the bundling of resources.

The analysis by Byrne and Lundy (2019, p. 362-363) provides an overview of children´s rights-based public policy making by disentangling the nature of children´s participation in policy processes, with

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reference to a common understanding of participation that is rights-based and incorporates the actions being undertaken to enable 'rights-holders' to claim their rights. Byrne and Lundy (*ibid.)* further argue that a crucial dimension of participation is that children understand their rights (to participate) and that they have opportunities to be involved in influencing the decisions that will affect their lives.

Public policy is about planning and implementing government activities. According to Hassel (2015), public policy is a set of decisions to influence, change, or frame a problem or issue that has been recognised in the political realm by policymakers and/or the wider public. Birkland (2016, p. 8-9) holds the view that there is a strong possibility that a single definition of public policy will never be developed (because of the diversity of existing government and public administration systems), but there are certain common attributes that relate to public policy making regardless of the administrative system.

To advance the theorisation of public policy and to link public policymaking to children´s participation can be done with the tools and distinctions provided by the analysis of the SDGs and in the CRC. Following the CRC, in this review children are understood as people under 18 years. They are also recognised as agents who can participate in matters concerning them despite their age (see Lister, 2007; Moosa-Mitha, 2005). This paper explores how children's participation in policymaking processes is reflected in the existing research literature. The paper focuses on the role of academic research as it relates to children´s participation in public policymaking. To this end, this paper adopts the concept of participation from Heinelt et al. (2002), who argue that participation in governing activities is not only a matter of being indirectly involved in governmental affairs (by voting, representation etc.,) but also through extended engagement in forms of policy making. The CRC's article 12, referencing various recommendations, statements and regulations shows how children should be involved but the existing research and empirical literature provides little evidence to indicate how this has been done (e.g., White, 2020). There are also models and operationalisations of participation, one of the best known is "The Lundy Model", which was originally developed to clarify varying obligations related to participation (e.g., Kennan et al., 2021) and which divides participation into five dimensions; safe space, a voice, an audience, influence and impact (Lundy, 2010). Nevertheless, there remains a lack of research evaluation in respect of how effective these models are or what kinds of participation there has been around them, although some evalution has been done (e.g., Kennan et al., 2021).

This paper is based on the literature review method (Gough et al., 2012) and more specifically, it deploys the seven-step model put forward by Fink (2013). The review process consisted of seven components, including selecting research questions, selecting article databases and sources, choosing search terms, applying practical screening criteria, applying methodological screening criteria, doing the review, and finally synthesizing the results. This paper progresses as follows. Next, we describe the methodology part which includes the identification process for the research literature and the way in which we analyse the findings. Then we report on the results of the review and continue by discussing our findings. Finally, we present our conclusions based on the findings and suggest a research agenda taking forward the academic research of children´s participation in the making of public policy.

Methodology

Database Search

The review was compiled from the following electronic databases: Proquest, Scopus, Wiley, Ebsco, Web of Science, Sage Journals, Emerald, ScienceDirect, JSTOR and Taylor and Francis. These databases are the most relevant to the subject of the review and have been used in similar systematic reviews (Hiilamo et al., 2021). The article search covered the period 2010-2020 which is the optimal period for summarising the existing evidence of such a phenomenon and its development. Papers older than ten years wer viewed as irrelevant from todays' perspective because of the proliferation of participation models and activity in the context of public policy practice in the past decade (e.g., Kjørholt, 2007, p. 38; Lister, 2007; Moosa-Mitha, 2005). The search was focused on academic peer-reviewed articles published in the English language. English was the primary language because it is the primary language used in the academic world. The

search included research carried out in the OECD-countries because of the assumed similarities related to children´s position in society as well as in public policy-related political-administrative traditions. Search terms were applied to abstract, titles and key word listings. Only journal articles were considered. The search was carried out in October 2020.

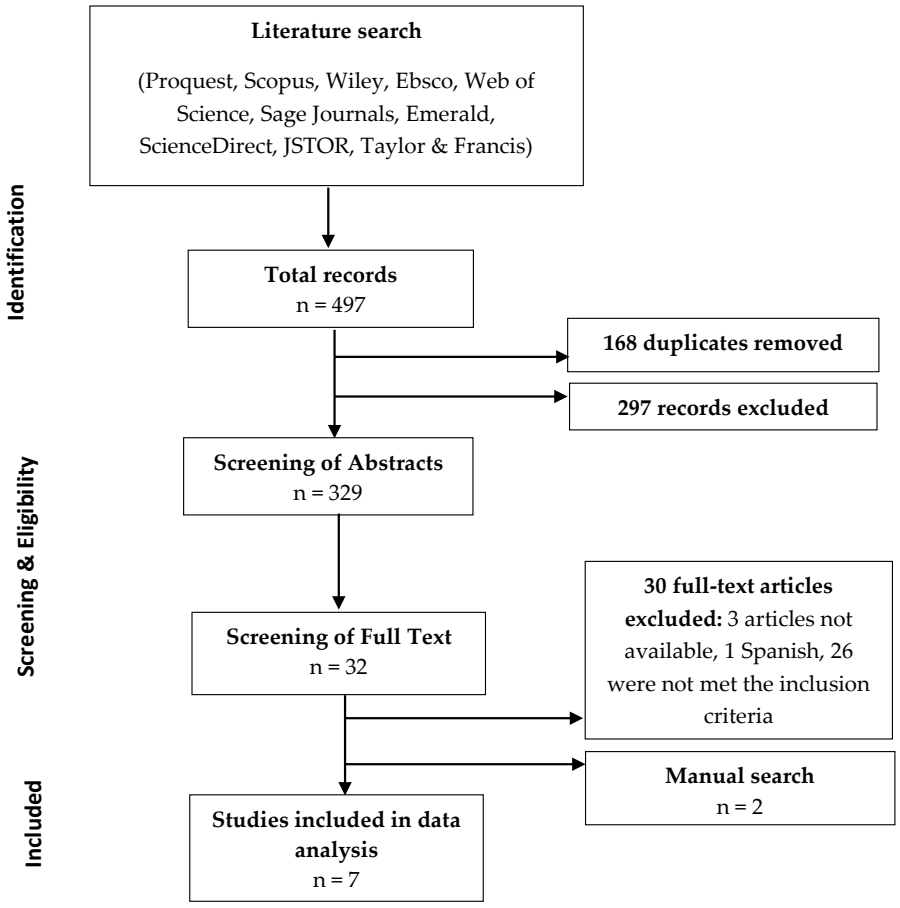

Figure 1. The review process based on the PRISMA flow diagram

The Boolean search term combinations used were: "children's participation" OR "children's involvement" OR "children's contribution" OR "children's influence" OR "participation of children" OR "involvement of children" OR "contribution of children" OR "influence of children" AND (strateg* OR program OR polic* AND public. The main concept, children´s participation, was thus combined with the concepts such as strategy", "policy", "program" AND "public" which refer to the context of children's participation in this review. The search then excluded articles that used only terms such as citizenship or social change.

Screening Process

A three-step selection process was applied. In the first stage, the search produced 497 articles; this was reduced to 329 after removing duplicates (168) using RefWorks. The remaining 329 articles were scrutinised by reading their abstracts in the screening phase of the analysis. The selection process was conducted by two authors (reviewer M. K. and E. S.) to determine the paper's relevance for the review as assessed by title and abstract. The articles were sorted into two file sets which were reviewed independently by the two authors (E. S. and M. K.). After independent scrutiny, the authors reflected on the set inclusion citerias and made decisions on the inclusion/exclusion, paper by paper. The focus was on empirical or theoretical studies addressing children's and adolescents' participation in public policy making processes or public reforms at the national, regional, and local levels of governance in the OECD-

countries.

In the second stage, based on the screening of full-texts 32 articles were included as selected studies. Both reviewers read all the full-text articles which were available (n=28) and assessed for the eligibility. In the second stage, 32 articles were included for detailed analysis. At this stage, both reviewers read all the full-text articles which were available (n=28) assessing the eligibility of each paper. After this process, altogether 23 articles were excluded since there were no explicit references to children's participation in public policy or reforms. These articles did not meet the inclusion criteria (e.g., focus on children's participation in service development, methodological or register study or literature reviews not guided by the research question). The reviewers then read all available full texts which were available and to confirm the validity of the selection process. A shared template was used (Table 1).

Table 1. Inclusion criteria for the articles

	Criteria
Search terms	• children's participation OR children's involvement OR children's contribution OR "children's influence OR participation of children OR involvement of children OR contribution of children OR influence of children • strategy OR program OR policy • public
Databases	• Proquest, Scopus, Wiley, Ebsco, Web of Science, Sage Journals, Emerald, ScienceDirect, JSTOR, Taylor & Francis
Publication years	• Year 2010-2020
Target group	• Children under age 18 year
Type of study	• Theoretical and empirical, peer-reviewed scientific articles
Language	• English
Context	• Public strategy and program level and public policy making and processes in western countries

After the screening process, five articles were included in the analysis since only these studies related to children´s participation in public policymaking and government reforms. Since the surprisingly low amount of relevant research, an additional manual search (e.g., Google Scholar, reference lists) was undertaken to make sure that all the relevant research was included. This was conducted by two authors (E. S. and M. K.) to confirm that all relevant articles had been found. This resulted in two additional articles being included in the selected complitation of articles. These two additional articles were not initially found in the selected papers because they were not published in academic journals but were nevertheless considered important for our analysis. At the third stage, the reviewers then established the final sample, consisting of seven articles. These articles were scrutinised from several points of view to understand what participation could mean in policymaking. From these articles we collected information on who participated and how, what was the context, the research questions, methods, main findings and implications. With that information in hand, the review then focused on the threefold classification related to public policy participation: type of participation, type of policy-reform and outcome of participation.

In analysing the article data, this threefold classification consisted of multiple participation dimensions, for example, an orientation towards the solving of societal problems and the government's contribution, made on the public's behalf, ostensibly for the betterment of society. Of the reviewed articles, only one included both aspects, children's direct involvement in public policymaking and an analysis of that. An additional three studies included evidence of children's participation in policymaking or public matters while the final three were theory-based and did not analyse children's participation in policymaking but instead created theoretical approaches to understand children's participation as *part* of policymaking. We will briefly review these seven papers in turn.

Results

The only article that fell into the category of public policymaking and included an analysis of direct children's participation, was about children's participation in political processes in Israel's Knesset committee (Perry-Hazan, 2016). In Israel, Parliamentary (Knesset) Committees are policymaking 'arenas'

where different views and opinions are heard and where participants can bring issues and ideas to the table - with the idea that these opinions can subsequently be taken into consideration in policymaking. Every participant has a couple of minutes to promote their views. Committee work is part of an ongoing pattern to promote children's participation in Israel.

Perry-Hazan (2016) reviewed children's participation in these meetings by looking at the meeting protocols and interviewing an advisory group of children. Perry-Hazan notes that although children have a role in policymaking meetings, power remains with the adults. Adults can take children's concerns into consideration or leave them out. Children's opinions can become part of the policymaking process, but, according to Perry-Hazan, the adults involved usually focused on evaluating the children's appearance in committee more than on seriously considering their point of view. The article nevertheless enhances our understanding of children's participation in policymaking: even though there is a clear pattern here in terms of children's role in policymaking which remains, effectively, a 'box-ticking' exercise with no statuary need to take their perspectives forward into the policy making process. Perry-Hasan also notes that adults' attitudes towards the children's arguments need to be improved. Attitudes are too often 'fawning or dismissive' and can 'elicit extreme responses' as Perry-Hazan puts it. The article does however provide several important insights into how practitioners, who specialise in children's participation, can improve effective practices for children's participation.

A second empirical article also concerned Israel. Uziely (2018) explored the difficulties of government reforms from the professional's point of view. The Israeli Special Education Law determined that all pupils have the legal right to participate and Uziely analysed the implementation of the educational reform that included young people's voices. What was found was that adults' attitude played the key role in implementation. Uziely used an eight-step linear scale to measure pupil satisfaction. In the research Uziely also analysed various socioeconomic, cultural and occupational variables.

According to his findings, if adults do not already believe in children's participation, there is little likelihood of such participation succeeding. As his main finding, Uziely discovered that many of the adults responsible for the implementation of the reform did not believe in its core principles. As such, Uziely noted that legislation alone is not enough when implementing a reform. Additionally, the concept of child participation has itself to be promoted among those adults tasked with implementing it.

The third empirical article is from Forde et al. (2017) where they studied children's and young people's participation in communities. In their study, participating children were aged 7 to 17. They also studied adult's perspectives in these same communities. In total 74 children and 34 adults participated. What they found was that children were involved in their communities in many ways but at the same time had little knowledge of how they can participate in local decision making. Children had better opportunities to participate if they were part of youth clubs or projects. Children also recognised negative or dismissive attitude in adults. At the same time, adults recognised community support as organised activities rather than spaces for children to participate. What is noteworthy here is that there is also a lack of communication between different adults in the community. Adult attitudes towards children's participation is also addressed in this article. If children's participation is taken seriously and understood as a relational matter, adults should have more dialogue with children and other adults concerning the ways in which children can be involved.

Interestingly, Forde et al. (2017) discovered that children and adults see participation very differently. Whereas adults felt that there were a lot of opportunities for children to participate, children considered their opportunities to participate inadequate or superficial. From the children's point of view, schools are hierarchical institutions where their opinions are not heard. Forde et al. also pointed out that good relationships between students and teachers helps to create an atmosphere where the exercise of participation is possible. They also noted that in schools, children felt that they had at least some opportunity to participate. The findings also noted that if authentic participation is taken seriously, efforts should be focused on promoting structures at the policy making level, including children's participation.

In the fourth empirical article, Vanhaeght and Bauwens (2016) explored in a case study how children

experienced their participation in a TV cultural policy project where children participated by performing on the TV show. The studied children were between 9 and 13 years old when participating and 10 to 14 when interviewed. All 17 participating children were from families with high-level cultural capital. Their main finding was that children had little say in the production process. At the same time, they were concerned about how they and their art, such as songs, was used in the production but felt that there were few ways to influence the matter. Children in general recognised that the decisions were made by adults, but they also criticised the situations where adults were disrespectful towards their art. As Vanhaeght and Bauwens (2016) showed, that while the TV cultural policy project was viewed as a participatory project, it nevertheless illustrated how the children's role in participatory projects can be seen as paradoxical when they are, at the same time, given the opportunity to participate and but not given the power to impact decisions.

The last three analysed articles were each theoretical in their approach. In these articles, the researchers focused on understanding where and in what ways children can be political actors (Kallio & Hakli, 2011), what the core-elements are in children's rights-based politics (Byrne & Lundy, 2019) and how national strategy has improved children's lives (Hanafin et al., 2012).

Kallio and Hakli (2011) concluded in their article that children can be conceived of as political actors in everyday life. They approached the ways in which children undertake political actions from a theoretical standpoint. They develop a theory-based conceptualised model that set out to 'conceptualise children's political agency'. They also look at spaces where politics can occur both in official settings and everyday spaces. In their analysis, children created space for their actions without adults' approval. When considering children and policymaking together, adults should widen their perspective to understand children's own ways of acting and participating in political matters. Their paper is based on research concerning child and youth policies and the politics occurring in children's everyday lives. Kallio and Hakli discovered three different ways through which children can act politically: First, children's political agency unfolds in planning, decision-making and policymaking processes. They articulated that in these contexts children can be supported by educating them in relation to performing the democratic exercise and in promoting active citizenship. Children can also be involved in official and semi-official politics, offering them opportunities to speak. Second, children are engaged in events and issues known to have political significance in their lives, such as war or racial struggles. Usually, children are seen in these circumstances as social or cultural actors but also as being unlikely to understand their actions as political. Third, children practice politics in their 'seemingly apolitical everyday environments'. They might for example try to challenge positions offered to them by adults.

Byrne and Lundy (2019) discussed some of the core elements of children's rights-based policy. They create a framework for understanding children's rights-based approaches to policy based on the principles/provisions of the CRC. Rights-based understanding includes the core-elements in children's participation which are: 1) Making sense of CRC's participation principles, 2) The creation of a process to impact children's rights, 3) Putting participation and partnership into practice, 4) Involving budgetary issues in the participatory process, and 5) Raising awareness and enhancing publicity to make public policies better known to children. In their study Byrne and Lundy point out that the ways in which children can be part of the policymaking processes should rely on children and adults being partners in the same process.

The Hanafin et al. (2012) article shows how important it is to evaluate the impacts of public policies and service delivery on children after the policy planning phase. In their study, the authors deployed multidimensional and multi-methodological approaches. They discuss how the National Children's Strategy has improved children's lives and understanding of child wellbeing in Ireland. They also analysed the actions undertaken to implement the National Children's Strategy. What was done here was to create an understanding of the different systems around children, identifying improvements in terms of evaluating and monitoring children's lives.

Hanafin et al. (2012) underline that the children´s role is essential in policy learning even though

their role in policy planning remains minimal. The effects on children´s wellbeing is, nevertheless, significant, they argue. Focusing on how, why and when children should be considered participants is important in generating a fuller understanding of the processes around children's participation, although there is also a need here to widen the scope in policymaking to create practices supporting more structured ways for children to participate.

Table 2. A Summary of included studies.

Study	Aim (including sample and methods)	Type of research	Results
Byrne & Lundy, (2019). Children's rights-based childhood policy: A six-P framework.	Aim: to discuss and clarify core elements of children's rights-based policy.	Theoretical	A framework for understanding children's rights-based approaches to policy based on the following six 'Ps': 1) the *principles*/provisions of the United Nations Convention on the Rights of the Child (CRC); 2) the *process* of children's rights impact assessment; 3) the *participation* of children and young people; 4) *partnership* to ensure joined up working; 5) *public budgeting* to ensure that the resources are in place for implementation; and 6) *publicity* to make policies known to children and young people.
Forde et al. (2017). Children and young people's participation in the community in Ireland: Experiences and issues.	Aim: to study children's and young peoples experiences about participating in their communities. Sample and methods: (N= children 74, adults 34) were living in location, children age 7-17, parents with experience of children aged 7-17, community stakeholders working with children aged 7-17.	Empirical	Children and young people are active participants in the community. They express interest in having a greater voice and influence in their communities. They are in general dissatisfied with decision making processes. There need to be more spaces in communities for children's participation and in public policy spaces for participation and children's right to participate are uneven. There should also be a change in adults' attitudes and there should be training for adults in different community settings.
Uziely. (2018). Professionals' attitudes toward children's participation: Implementing educational reforms.	Aim: to examine the implementation of the liberal reform that let young people's voices be heard. Sample and methods: The professionals (N=115) from all over Israel who participated in the deliberations of placement committees. An online questionnaire was used to investigate desired and actual levels of children's participation in the committee's discussions, and the pupils' satisfaction with the discussion process.	Empirical	After four years the regulations were published, the new norms were not widely spread: about half of the professionals involved in implementing the reform were not convinced that every pupil has the right to voice his or her opinions or concerns in the course of the committee's discussion. The major finding was that many of the adults responsible for the implementation of the reform do not believe in its principles and are even opposed to child participation.
Perry-Hazan.(2016). Children's participation in national policymaking: "You're so adorable, adorable, adorable! I'm speechless; so much fun!".	Aim: to examine children's participation in national policymaking meetings. Sample and methods: 116 protocols of committee meetings in the Israeli Knesset that frequently discussed issues affecting children: The Education, Culture and Sport Committee and the Committee on the Rights of the Children during the period Jan 2012–Jul 2015 were analysed. Four semi-structured interviews were conducted with two girls and two boys who had participated in meetings when they were 16 to18 years old.	Empirical	The findings exemplify the potential benefits of children's participation in national policy discussions in promoting policy changes and contributing unique perspectives that contextualise the discussions and produce dialogue. Children's contextualising comments can contribute important perspectives, exemplifying for the adults how policies are translated into practice, and can stimulate significant discussions. Children's comments in national policy discussions may elicit extreme responses, expressed as either fawning or dismissive behaviour. Patterns of children's participation in policy making meetings were clarified**.** The lack of minority participants was identified.
Vanhaeght & Bauwens.	Aim: to explore in case study how children experienced a	Empirical	Children's views were minimally involved in the production process. The children also expressed

(2016). That's my at: A case study on children's views of cultural policy.	participatory TV cultural policy project and, related to that, which views did they share on cultural policy matters? Sample and methods: Children (n=17) 9 to 13 years old when they participated in the show, a year later, eleven of the 17 children, all of who came from a family with a high level of cultural capital, were interviewed.		concerns about how their art and cultural practices were represented. They showed a strong sensitivity about democratic access to culture and diversity of culture. Quite a few children recognised their lack of decision-making influence and carefully criticised the disrespectful representation of their art form. Children involved in this TV programme still held rather traditional ideas about cultural education and adults' role in it.
Hanafin et al. (2012). Advancing understandings of child well-being through the strategic development of a National Children's Research Programme.	Aim: to discuss how the National Children's Strategy has improved children's lives in Ireland and whether it is coherent with recent understandings of child wellbeing.	Theoretical	Strong evidence-base for policy makers; seek an understanding of the complexity of children's lives, incorporate understanding of the multiple systems surrounding children, improvements of evaluating and monitoring children's lives.
Kallio & Hakli. (2011). Tracing children's politics.	Aim: to conceptualise children's political agency and the spaces of children's politics by addressing children's politics in official settings and everyday contexts. The study is based on research concerning child and youth policies and the politics played out in children's everyday life practices.	Theoretical	Three distinct ways in which children can be found to act politically: 1) children's political agency unfolds in planning, decision-making and policymaking processes. In these contexts, children are empowered by educating them in the democratic exercise and active citizenship, involving them in official and semi-official politics and offering them opportunities to voice their concerns publicly. 2) Children are engaged in events and issues known to have political significance in their *quotidian* lives, such as war, political economy and racial struggles. 3) Children practice politics in their seemingly apolitical everyday environments by exercising a degree of autonomy in their mundane practices, whichever they may be. A model for identifying different modes and spaces of children's agency in terms of political involvement and political presence was proposed.

The composition of the reviewed articles suggests that children´s role in the in policy making remains unclear and children´s participation often only takes place in the context of adult-led processes. If participation is considered important, policy planners and implementers should also consider the ways in which children's participation in such processes could be included and evaluated more fully rather than simply being viewed as an element of functional or administrative practice.

Discussion

One motivation for this paper – based on the seven identified articles - was to make sense of how children's participation in policymaking has been studied by reviewing the existing body of academic research and discerning what can be learned from that. At first, our search for research evidence related to articles where children actively participated in policymaking, but the lack of such articles was a surprise. Consequently, we then focused on collating data about children's participation in policymaking by looking at theories and conceptual models of children´s participation in public policymaking in various textbooks.

To answer the questions around how children's participation has been facilitated, it is clear that children's participation in adult-led processes remains rare and that where it does exist, it is governed by adults. For instance, the case analysis concerning Israel (Perry-Hazan, 2016) makes explicit the difficulty in finding the best and most appropriate way in which children's views can be taken 'seriously' and included in, or incorporated into, the making of public policy. Interestingly however, in the Israeli Knesset,

children´s perspectives have produced reciprocal dialogues between adults and children and thus stimulated significant societal discussion (Perry-Hazan, 2016). Drawn from the experiences reported in the Perry-Hazan (2016) and Uziely (2018) articles it seems that if adults do not support children's participation, even the most important reforms, from a children´s perspective, remain 'untouched'. This view is supported by the analysis of Forde et.al. (2017), and Vanhaeght and Bauwens (2016), who claim that children themselves are keen to participate but are not taken seriously by adults. As Byrne and Lundy (2019) note, in understanding children's role in policymaking, it is also important to look at the issues and aspects guiding the adult's perspectives.

Byrne and Lundy (2019, p. 363) somewhat pessimistically conclude that even though there are now numerous examples of children and young people being involved in public decision-making, significant challenges remain. In their words (ibid.) "…participation is not always routine, nor is it always meaningful". The lack of meaning in participation refers to the adults' understanding of the process as children's participation is generally viewed from the adult's point of view, for instance through the sensemaking lenses of parents, professionals and adults in general (e.g., Philips et al., 2019; Schalkers et al., 2016; Vogts et al., 2010). Focusing on the adult's point of view however narrows significantly our understanding of children's participation and leans on adult conceptualisations of participation (see also Kallio & Hakli, 2011).

Even though formal models for children´s participation in societal activities exist (e.g., Shrier, 2001), there is little evidence that these models are followed in practice – or that any significant body of scholarly research exists around this topic. Arnott (2008), for instance, has argued that children have seldom featured in these kinds of policy analyses and that while children´s participation in public policy initiatives have been used as a means of (re)building 'trust' and 'renewing democracy', such endeavours are generally lacking in concrete efforts to incorporate children´s views in public policy formulations and strategy building.

Building upon Perry-Hasan´s (2016) conclusions, it seems that children's participation should be approached and evaluated from at least two points of view. First, policymakers need guidance on the ways in which they hear children's views and how best they can then take those views into consideration. Second, there are multiple and diverse approaches through which children´s participation can be organised and maintained. Furthermore, and from the Israeli Knesset case, it is clear that children also need guidance in terms of what kinds of matters can be brought into parliamentary committees or other policy-making arenas and what would be a kind of optimal way to accomplish this. Perry-Hazan (2016) advocates for the view that children's participation does not happen on its own, nor does it take place automatically: instead, in policymaking, participation takes place when children and adults work together to create a common understanding related to what matters, what makes the difference and how different aspects are taken into consideration.

As an example, in the home country of the authors of this paper, children were invited to participate in the making of the first National Child Strategy in late 2020 by creating a questionnaire and organising working groups in which children could participate. The questionnaire attracted 1 344 children to respond to the survey. Moreover, more than 40 children participated in the working groups that put together the National Child Strategy document. The outputs of the workshops were presented to the Parliamentary Committee and were warmly appreciated by the members of the Committee yet, despite this, there remains little academic interest in the process. Another example relates to Scotland, where the Scottish Government explored the nature of children and young people's participation. However, the findings which were based on six case studies, were reported only as a national report (Ross et al., 2018). This is an important point in terms of the need to better understand the role that children's participation plays in both academic and political processes. A concerted academic research effort is therefore required to give children's participation the mandate it needs to become part of every political process. Researchers working with children have many good insights in respect of how, under what terms and in what ways, children can be involved but without the codification that academic research brings to the field, this knowledge remains

piecemeal and *ad hoc*.

In conclusion, children´s rights are an important element of societal development, promoting the betterment of society. This paper suggests, however, that significant gaps remain between practice (practical participation) and the ideals and commitments undertaken globally, particularly in respect of the CRC. This is not to say that children´s participation in the making of public policies is non-existent or that it seldomly takes place. Clearly however the body of relevant academic research around children's participation at the strategic level remains scarce.

It would, in this light, be interesting to know whether leading politicians and senior civil service staff have any real interest in developing children's participation. It would also be interesting to know why academic interest in children´s participation in public policymaking is so limited. Is it because, in existing policymaking processes there is, generally, so little room for any participation given the nature of complex societal problems and the turbulent time-cycles of public policy reforms (e.g., Virtanen & Tammeaid, 2020)? As government reforms are complex and multifaceted in nature, could it also be that children´s participation in policymaking is difficult to grasp for researchers because children's participation simply takes a lot of time and effort, as highlighted in the Scottish example (Ross et al., 2018)? Or is it so that children do take part in public policy making processes, but that scholarly research has simply neglected to view this as a research issue? It is also important to ask whether policymakers – leading politicians and senior civil service staff – have a genuine interest in developing children's participation through different phases of the policy cycle and if so, in determining how the children´s role should best be clarified and how best to get academics to study it (on the practical problems related to this assumption, see Alfandari, 2015).

In summary, a plethora of practical, theoretical, and conceptual guidelines – or ideal models – already exist in terms of treating children as policymaking partners. This is clearly a positive thing. To improve further children's role in policymaking, adults should however widen their perspectives both on what is considered 'political', including how children's views can better be taken into consideration and on how best to research this. Currently, for the professionals who work on the frontline in terms of public services, children's participation seems to be merely something that needs to be executed – a 'tick in the box' exercise – rather than something that is happening based on an agreed pedagogic process. If there is no fundamental base knowledge of how children should be involved, children's participation processes can, for practitioners, quickly come to be seen as 'too difficult to execute' in relation to wider political processes. It is important then to extend the scope of research related to children´s participation in policymaking processes to create a better collective understanding among policymakers of how to use academic research in the development of children´s participation. If participation is seen as being essentially unattached to policymaking, it will not be viewed as a vital part of the policy process and will not attract interest in terms of academic research. Policymakers thus need convincing that children's participation is something to invest in.

Conclusions

According to Article 12 of the CRC, children have a right to express their views. For McCafferty (2017), this remains one of the most frequently cited principles in the UN convention in question. Reynaert et al. (2009) have stated that the focus of research on Article 12 has concentrated on three specific topics: firstly, on autonomy and participation rights as the new norm in children's rights practice and policy, secondly on children's rights *vs.* parental rights and thirdly on the global children's rights industry (i.e., on the diversity of conceptual dimensions regarding participation). From the perspective of public administration and public services then, the question of service-user involvement deserves further attention. The research literatures in respect of the abovementioned issues have proliferated over the last decade indicating the importance of considering service users´ views in upgrading and co-creating public service delivery (Alves, 2013).

The aim of this review was to focus on the role of academic research when discussing participation in order to discover how children's participation in policy-making processes is analysed in academic

research. The problem seems to be that although there is a lot happening in relation to children's participation, there remains a lack of academic studies evaluating this participation. This leads us to question; What do we know about chidlren's participation in policymaking processes? The answer being, not very much. Do children take part as autonomous subjects in the making of public policies and are children recognised as partners in public policymaking in the various phases of public policy protocols? Perhaps, but we cannot be sure because it is not documented by systematic research. Although the analysis in this paper has limitations (e.g., comprising only a handful of studies published in academic journals, and confined only to the English language, focusing on western OECD-countries and with only a limited knowledge of the possible gray literature), this review suggests that the answers to both these questions are negative. The reviewed articles indicate that children are not part of policymaking process in ways that support and consider their views and opinions or their ideas around participation more generally. Instead, children tend to have only a perfunctory/superficial role in participatory processes while adults retain the power to either take children's views into consideration or leave them out.

The issue of children's participation does however have significant connotations for adult's democratic and participatory methods but remains too often viewed solely from an adult point of view. There is evidence that participation is seen as something that adults are creating for children when it should perhaps be understood and calibrated through the topics children themselves want to be involved in. On the other hand, it seems that children's participation depends on the attitudes, good will and understanding of the adults involved. How adults conceive of the value of participation and the opportunities it affords, as well as the connotations it has and how participatory practices are created, represent crucial decision-making 'points' in the future evolution of children´s opportunities to participate in the making of public policies.

The main findings of this study can be summarised as follows. First, more systematic ways to explore and research children's participation in policymaking processes should be adopted, since the topic (children as participants) in academic terms, clearly remains under-researched. Second, based on the analysed articles, it is clear that policymakers need to change their attitudes towards children's participation and acknowledge that children can be active agents within the policymaking process. Children's role in policymaking should thus be defined more clearly and systematically. To do this however we need more academic research. Based on the articles reviewed for this research paper, it is obvious that the topic of children´s participation in policymaking processes is under-utilised as a research focus and thus that policymakers are unaible to easily access and test the pragmatic tools required to help improve children's participation. A lot is going on in terms of actual participation but the lacuna in terms of academic research makes it difficult to evaluate what works and what does not. Without the necessary embedding research effort the possibility exists that participation remains *ad hoc*, unscientific and unstructured.

Finally, it should be questioned why this is so: what explains this paucity in terms of participation studies as a part of public policymaking focusing on how and when children could and should participate? We believe we have identified a two-dimensional lacuna in relation to this topic: firstly, the scarcity of participation cases (as reported in reviewed articles) and secondly the scarcity in relation to the evaluation of already existing participation practice.

Declarations

Author's Declarations

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Research Article

Greek early childhood educators' knowledge of attention-deficit/hyperactivity disorder

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Abstract: As more children enter preschool programs, there is an increasing need for early education professionals to recognize and understand Attention-Deficit/Hyperactivity Disorder (ADHD). This study examined 120 Greek early childhood educators' knowledge of ADHD using a Greek self-report ADHD Knowledge Questionnaire (ADHD-KQ). All participants worked in infant/child centers operated by municipalities in Greece. Results point out early childhood educators' lack of fundamental knowledge about the causes, symptoms/diagnosis, cognitive deficits, and interventions regarding ADHD. Among the personal and professional variables (years of teaching experience, age, and educational level) studied as predictors of overall knowledge about ADHD age was found as the only significant. Older participants seemed to have better knowledge regarding the basic aspects of ADHD. Results suggest greater efforts must be made to provide training specifically in the management of children with ADHD.

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Attention-deficit/hyperactivity disorder; Early childhood education; Greek context

Introduction

Attention-Deficit/Hyperactivity Disorder (ADHD) is described in the Diagnostic and Statistical Manual of Mental Disorders (DSM) 5 as a neuro-developmental disorder with a persistent behavioral pattern of severe inattention and/or hyperactivity/impulsivity. The behaviors must be uncharacteristic for the developmental age of the child, be manifested in different settings (for example at home and school), have started before the age of 12, be present for at least 6 months, and interfere with social and academic performance. Children diagnosed with ADHD demonstrate high levels of inattention, hyperactivity, and impulsivity (American Psychiatric Association, 2013). Three subtypes of ADHD can be distinguished, namely the inattentive type (I; e.g. struggles to follow instructions, loses things, is easily distracted), the hyperactive-impulsive (HI; e.g. talks excessively, difficulty waiting or taking turns) type, and the combined type (both I and HI) (American Psychiatric Association, 2013). It is typically diagnosed during the school years, although features of the disorder can be identified in early childhood (Singh et al., 2015). Nowadays as more children enter preschool programs, early childhood educators might more often face the challenge of identifying and coping with ADHD before formal school entry. Successful management of this disorder (i.e., maximizing student's potential by emphasizing socialization, learning and behavior) during this time might increase the likelihood that children will have successful academic and social experiences (Phillips et al., 2002). Successful management can be achieved if early childhood educators are aware of what the research data suggest about ADHD, the varying theories of its cause, and the notion that there are no simple solutions. This knowledge will assist early childhood educators in supporting efficiently children with ADHD and their families as well. On the other hand, problems related to ADHD may be multiplied when teachers possess a low level of knowledge of efficient interventions or insufficient understanding of the causes of ADHD (Stampoltzis & Antonopoulou, 2013). Thus, knowledge about ADHD is most important since the meaning that adults (in general) attribute to children's behavior influences the nature and the quality of care that children receive (Singh et al., 2015).

Nevertheless, the seriousness of ADHD symptoms and whether thisdisorder should be regarded as

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a disorder or just the results of normal behavioral variations among children have been questioned (Breggin, 1998; Singh et al., 2015). Researchers in the field support the notion that ADHD is a behavioral description based on criteria that are sensitive to subjectivity and cognitive biases since there are no measurable biological markers or objective tests to establish the presence or absence of ADHD(Gambrill, 2014).Thus, ADHD remains one of the most talked-about and controversial subjects in education. The debate ranges between two ends of a continuum (Singh, 2002a, 2002b,). On one end are those who support the biological perspective stating that neurological and chemical imbalances in the brain cause ADHD and therefore propose medication as the most effective treatment (Cooper, 2001). On the other end, environmental influences are suggested as a key role in the development of ADHD. Psychosocial risk factors, including stress, marital conflicts, separation and divorce, and maternal depression were reported to be associated with ADHD (Breggin, 1998; Kean, 2004; Leo, 2002). Furthermore, it is evident that many of the symptoms of ADHD are normative, age-related behaviors and part of the behavioral repertoire of preschoolers. This constitutes one of the main problems in determining the significance of ADHD in young children (Smidts & Oosterlaan, 2007). However, according to Smidtsand Oosterlaan (2005, as cited in Smidts & Oosterlaan, 2007), preschoolers with elevated ratings on the ADHD scales of the Preschool Behavior Questionnaire, specifically within the domain of inattention, may present a high risk for ADHD. In addition, past ADHD studies of older children suggest that ADHD symptoms are more common in boys rather than girls, even at preschool age (Smidts & Oosterlaan, 2007).

Teachers and other school personnel are often the first to suggest the diagnosis of ADHD in a child since ADHD is generally not formally diagnosed until children reach school-age (Phillips, 2006; Sax & Kautz, 2003). Research data suggest that even though the three ADHD subtypes (Hyperactive-Impulsive, Inattentive, and Combined) have been validated in a sample of children ages four to six (Lahey et al., 1998), preschool children tend to display symptoms consistent with the predominately hyperactive-impulsive subtype (i.e. Phillips et al., 2002) when diagnosed with ADHD. Research data, however, also show that education and healthcare professionals tend to classify relative immaturity as ADHD since the youngest children in a class are twice as likely as their older classmates to receive a diagnosis of ADHD and medication (Meerman et al., 2017). Further research has indicated that the majority of teachers and general practitioners are unaware of this association between relative age, ADHD diagnoses, and prescribed medicine (Krabbe et al., 2014). Educational professionals should be aware of the many potential causes of a child's "unruly" behavior. Age should be taken into account when a child seems more restless and less focused than their classmates. Seeing ADHD as the only explanation for restlessness might, for example, exclude any other possible explanations (i.e psychosocial factors) and in this way operate as an etiology for any other socially intolerant behavior (Erlandsson et al., 2016). Previous research indicates that educational professionals feel insecure when dealing with behavioral problems (Walter et al., 2006) and hesitant to deal with Special Educational Needs (Pijl, 2010). These feelings might result in a less favorable stance towards children with "unruly" behaviors regarding their intelligence, personality, and behavior (Batzle et al., 2010). These children are also more likely than typically developing classmates to be socially rejected and face greater difficulties with their peers (Hinshaw, 2002). Since such behaviors can be at the poles of any bell-curved behavioral indicator and for this reason be confused with normal "young" behaviors, the crucial role of educators in identifying children who need additional support, making referrals for their assessment, and being able to manage them in the classroom becomes more evident (Sherman et al, 2008). However, disputable yet pervasive claims of ADHD as a genetic neurodevelopmental disorder could make educational professionals feel inept and might urge them to find solutions outside the realms of their skills and facilities (SanneteMeerman et al., 2017). Therefore, it seems critical for educational professionals to be aware of this when confronted with inattention and hyperactivity in the classroom. This explains the increasing emphasis on teachers' knowledge and attitudes toward ADHD in recent years. Several studies from different parts of the world have found that teachers' knowledge is at best reasonable and in many cases, insufficient, requiring intervention (Skounti et al., 2010; Vereb & DiPerna, 2004; Youssef et al., 2015; Walter et al., 2006). All in all, given the significant role that knowledge about ADHD plays in teachers' attitudes toward children with ADHD and teachers' willingness to implement appropriate interventions the current study examines Greek early childhood educators' knowledge about ADHD and

analyzes the relationship between ADHD knowledge and certain educators' demographic characteristics.

Educators' Knowledge of ADHD

Because many ADHD symptoms listed in the Diagnostic and Statistical Manual of Mental Disorders (DSM 5; American Psychiatric Association, 2013).) are linked to school activities educators' reports are commonly used to diagnose children with ADHD (Havey et al., 2005; West et al., 2005). In addition, educators are considered more reliable than parents for offering information to mental health specialists (Manuzza et al., 2002; West et al., 2005). Furthermore, educators are often the first to suggest a referral to mental health services (Sax & Kautz, 2003). Also, other researchers report that environmental factors, for example, class size and culture may influence teachers' perceptions of which students may have ADHD (Einarsdottir, 2008; Havey et al., 2005). Much previous research shows that educators' knowledge of ADHD is limited and that ADHD misconceptions are common (Anderson et al., 2012; Ghanizadeh et al., 2006; Stampoltzis & Antonopoulou, 2013; Weyandt et al., 2009). Most importantly, previous research findings show that teachers with average to high knowledge of ADHD reported more positive behaviors toward children with ADHD and held more favorable beliefs about treatments than did teachers with low knowledge (Ohan et al., 2008).

On one hand, past research findings in Greece report that Greek teachers hold a medium knowledge of ADHD with several misconceptions concerning biological and environmental aspects of the disorder. In addition, their knowledge about the treatment of ADHD is rather limited (Antonopoulou et al., 2010; Dimakos, 2007; Galanis et al., 2021; Stampoltzis & Antonopoulou, 2013). Also, in the Greek educational system, most children with ADHD are served in a mainstream setting with a special education teacher's support (Skounti et al., 2010). On the other hand, more recent studies show that Greek primary school teachers are well-informed about the symptoms of ADHD disorder but lacked knowledge about the causes and management of ADHD in classrooms (Giannopoulou et al., 2017). Overall, past studies highlight the need for providing training to increase Greek teachers' knowledge and understanding of ADHD (Giannopoulou et al., 2017). Acknowledging that a) several assessment issues warrant special attention in preschool children, such as the level of activity, inattention, and impulsivity that should be considered "normal" for preschoolers or the issue of the technical adequacy of measures commonly used for assessing preschool-age children (e.g. behavior rating scales) (Phillips et al., 2002) and b) that DSM 5 has increased the age of onset criterion, as well as the impairment criterion compared to the previous version, the DSM 4 (Thomas et al., 2013) very limited research (especially in Greece) has examined the knowledge of early childhood educators knowledge regarding ADHD symptoms, causes, and possible interventions.Since early childhood educators are key figures in early care settings their knowledge of key aspects of ADHD is crucial as low knowledge or misconceptions may affect their attitudes toward children with ADHD influencing children's social experiences (Phillips et al., 2002). This study aimed to explore early childhood educators' knowledge about ADHD and the relationship of participants' knowledge with the number of years of teaching experience, age, and educational level of participants. Probing Greek early childhood educators' knowledge about ADHD will provide us with insight into the level of their awareness and understanding of children showing inattention and hyperactivity in early care settings.

The Greek Context of Early Childhood Education and Care

Early childhood education services in Greece are structured according to the age of the children. Thus, the responsibility for early childhood education and care falls under the Ministry of Education, which caters to children aged four to six-year-olds (Kindergartens), and the Ministry of interior which caters to children between 6 months and 4 years of age (Daycare-centers). Kindergartens follow anational curriculum whereas daycare centers have no explicit curriculum (Grigoropoulos, 2021a). The few regulations concerning daycare centers refer to operational issues. Public daycare centers operate from September 1st to July 31st and from 7.00 am to 4.00 pm, five days a week (Iraklis, 2020). Within daycare centers, children are usually divided into mixed gender and separate age groups (Grigoropoulos, 2022, 2021b, 2020a). Daycare centers have mixed educational personnel including early childhood educators/ childcare workers (graduated from Technological Educational Institutions) and teachers (kindergarten-

university graduates) offering custodial care and education services (depending on the case; Grigoropoulos, 2021a, 2020b). Regulations on the operation of daycare centers by the Greek government emphasize the child-centered role of the curriculum while respecting the children's personal social and cultural differences (Skourletis & Fotioy, 2017).

Method

This study aimed to explore participants' knowledge regarding ADHD, using a Greek self-report ADHD Knowledge Questionnaire (ADHD-KQ) by Giannopoulou et al. (2017), and the relationship of their knowledge with age, years of teaching experience, and educational level.

Participants

The current cross-sectional study was conducted from September to November 2019. The sample consisted of 120 (118 female and 2 male) early childhood educators working in elevenday-care centers (paidikos-stathmos) for children from 2-and-a-half to 4 years old in the northern Greek region operated by municipalities.The low number of men in this study's sample is indicative of the fact that a very low percentage of preschool teachers are men in Greece (Grigoropoulos, 2019).Participants were recruited using purposive sampling, with the homogenous feature of being a working early childhood educator in a public daycare center. All participants worked within one specific municipality in the northern part of Greece and volunteered to participate following general email contact with the daycare center supervisor.Participants were informed about the aims of the study to ensure informed consent.Data collected from this study were confidential. Participants were provided with an envelope to assure that their answers were anonymous along with a copy of the consent form. The researcher collected completed paper forms and then debriefed those who participated. The procedure lasted approximately 10-15 minutes. This study followed all principles of the Declaration of Helsinki on Ethical Principles for Medical Research Involving Human Subjects and all the ethical instructions and directions of the institution to which the researcher belongs. The Demographic characteristics of the sample are provided in Table 1. An information sheet giving details of the study was provided to each educator.

Table 1. Demographic characteristics of the sample

Variable	%	
Gender		
Male	1.7%	
Female	98.3%	
Age group		
20-30 years old	22.5%	
31-40 years old	29.2%	
41-60 years old	48.3%	
Educational level		
Post-secondary education institutions	30%	
Technological Educational Institution	60%	
Postgraduate studies	10%	
Years of teaching experience		
0-4	26.7%	
5-10	30.8%	
>11	42.5%	
	M	**SD**
Years of teaching experience	18	9.2
Age	36.6	7.2

Measures

A background/demographic questionnaire and a 29-item self-report ADHD-KQ that covers four domains (clinical presentation, causes, cognitive deficits, and interventions) were administered to the participants of the current study. The background/demographic questionnaire included demographic questions such as age group, gender, educational level, and years of teaching experience. The second questionnaire included 29 items evaluating respondents' knowledge of ADHD (i.e., ADHD-KQ). Following a three-option (True/False/I don't know) response format correct answers received 1 point and incorrect ones 0 points. The possible score range was from 0, the lowest level of knowledge, to 29 for the highest. The response "I don't know" was not included in the calculation of the total score. The three-option response format was chosen to mitigate the limits of the dichotomous format (True/False) as it allows discerning those areas in which educators have more knowledge, areas where they have the least knowledge, and the areas in which they commit the greatest number of errors (Giannopoulou et al., 2017). The items were grouped into four sub-scale domains: Symptoms/Diagnosis sub-scale (item example: Q 1. Children with ADHD present with hyperactivity, impulsivity, and distractibility- 8 items), Causation sub-scale (item example: Q 18. ADHD is an exclusively genetic disorder, 6 items), Cognitive/Learning sub-scale (item example: Q 20. Learning difficulties are due to child's limited capacity to encode and retain information in their memory, 7 items), Management sub-scale (item example: Q 11. Pharmacological treatment sedates children with ADHD and makes them more obedient, 8 items). Giannopoulou et al. (2017) reported internal consistency of a= 0.89 for the total ADHD-KQ scale. In addition, the alpha coefficients for the sub-scales were acceptable (0.70 for the Symptoms/Diagnosis sub-scale, 0.73 for the Cognitive Deficits sub-scale, and 0.75 for the Intervention sub-scale), except for the Causes sub-scale, which was poor (0.59).

In this study the internal consistency of the total ADHD-KQ scale measured by Cronbach's alpha coefficient was moderate (0.68). The alpha coefficients for the sub-scales were 0.66 for the Symptoms/Diagnosis sub-scale, 0.61 for the Cognitive Deficits sub-scale, and 0.68 for the Intervention sub-scale. The alpha coefficient for the Causes sub-scale was poor (0.48) possibly due to the low number of questions. More questions regarding this sub-scale might have improved inter-relatedness between items. According to Pallant (2001) Alpha Cronbach values in the range of 0.60- 0.80 are considered moderate, but acceptable. Also, each of the sub-scales showed a significant correlation with the total ADHD-KQ scale score and there also was a significant correlation between the four sub-scales (correlation between tool's sub-domains that are considered to measure the same construct- convergent validity) (Table 2).

Table 2. Pearson correlation matrix for study variables

	1	2	3	4	5
1. ADHD- KQ		.594**	.743**	.690**	.624**
2.Symptoms/ Diagnosis sub-scale			.187*	.137	.310**
3. Cognitive deficits sub-scale				.426**	.265**
4.Intervention sub-scale					.205*
5. Causes sub-scale					

Results

Descriptive Statistics

Descriptive statistics were used to summarize early childhood educators' knowledge of ADHD in general. The sum of scores from the 29 Likert-scale items was used as a measure of educators' knowledge with higher scores reflecting a more complete ADHD Knowledge. Scores on the total 29-item ADHD Knowledge Questionnaire (ADHD-KQ) ranged from 5 to 17 points. The mean score was 8.92 (SD = 3.28), indicating that participants had poor knowledge of ADHD as measured by this scale since their mean score was below the average and the mean score of Greek teachers respectively (M=16.1) (Giannopoulou et al., 2017). The results given in Table 3 show that the overall average rating of early childhood educators on

each of the four sub-scale domains was below average.

Table 3. Participants' mean scores on the ADHD knowledge questionnaire and its four sub-scale domains

	Means and standard deviation	Rank range of each scale
ADHD-KQ total	8.92 (3.28)	0-29
Symptoms/ Diagnosis sub-scale (8 items)	2.89 (1.18)	0-8
Causation sub-scale (6 items)	1.44 (1.04)	0-6
Cognitive/ Learning sub-scale (7 items)	2.89 (1.38)	0-7
Management sub-scale (8 items)	1.7 (0.9)	(0-8)

Multiple Regression Analysis

Table 4. Pearson correlation matrix for age, experience, educational level and ADHD-KQ

	1	2	3	4
1.Age	1			
2.Years of teaching experience	.804**	1		
3. Educational level	.129	.148	1	
4. ADHD- KQ	.234*	.139	-.024	1

Notes: *Correlation is significant at the 0.05 level (2-tailed).
**Correlation is significant at the 0.01 level (2-tailed).

First, correlation analysis measured the degree of the relationships between age, experience, educational level, and ADHD-KQ. Results indicated that there was a significant positive association between age and years of teaching experience (r (120) = .804, p= .000) and between age and ADHD-KQ (r (120) = .234, p= .010) (Table 4). Multiple linear regression analysis was used to examine the association between predictor variables and the ADHD-KQ. The assumptions of regression analysis were tested and were not violated (Tabachnick & Fidell, 2001). ADHD Knowledge Questionnaire (i.e., ADHD-KQ) served as the criterion variable, and the number of years of teaching experience, age, and educational level as simultaneous predictors. Visual inspection of data plots showed that variables had normal distributions. The assumptions of no multicollinearity and independence of errors were checked using the SPSS available procedures (Collinearity diagnostics and Durbin–Watson test). Each of the VIFs was near one, suggesting a lack of multicollinearity. The value for the Durbin–Watson test was 1.541 suggesting that the assumption of independence has been met (Tabachnick & Fidell, 2001). The analysis showed that demographical variables included accounted for 15% of the variance F (3,119)= 6,80, p< 0.05. Multiple regression analysis showed that the age group variable (b = .197, t = 2.181 p< .05) was the only significant predictor of early childhood knowledge about ADHD. Educational level (b = .111, t = 1.221 p= 0.59) and years of teaching experience (b = -.018, t = -.118 p= 0.38) were not significant predictors (Table 5). Additional analyses were run with the separate subscales as criterion variables. None of the independent variables had any effect on the dependent variables (all p>.10).

Table 5. Linear regression of variables predicting ADHD knowledge

Variable	b	SE (b)	β	t	p
Age	.197	0.63	0.29	2.18	0.028
Years of teaching experience	-0.52	0.60	-0.13	-0.87	0.38
Educational level	-0.20	0.38	-0.04	-0.54	0.59

Conclusion and Discussion

This study aimed to explore early childhood educators' knowledge regarding ADHD, using a Greek self-report ADHD Knowledge Questionnaire (i.e., ADHD-KQ), and the relationship of their knowledge with participants' age, educational level, and years of teaching experience. Previous research has shown

teachers' lack of knowledge about ADHD and the need to understand it better to be more efficient with children who present aspects of this disorder (Nur & Kavakci, 2010).

The results of this study highlighted gaps in knowledge and understanding participants had about the causes, symptoms/diagnosis, cognitive deficits, and interventions regarding ADHD. Given this finding, there is room for increasing early childhood educators' knowledge of ADHD. This will also influence educators' behaviors and perceptions of children with ADHD (Galanis et al., 2021). Improving early childhood educators' knowledge about ADHD is essential to overcome any early negative perceptions of a child and his/her behaviors in early care settings or classrooms. Strong knowledge of the basic aspects of ADHD (e.g. symptoms, causation, and management) might empower early childhood educators to feel more confident and comfortable with these children since they are often the first to witness some of the characteristics of this disorder. Furthermore, as early childhood educators in Greece seem to play a role in the referral of children's problems (Maniadaki et al., 2003) it is crucial to have accurate, up-to-date, information for ADHD since early childhood educators could serve as effective gatekeepers to mental health services. Thus the basic knowledge of the causation and symptoms of ADHD is critical since it can prevent the inappropriate judgment of a child and/or his/her parents and also ensure further support for them (see Flanigan & Climie, 2018). On the other side, limited knowledge of ADHD might lead to the perpetuation of false beliefs (Bekle, 2004), and poor use of classroom interventions (Blotnicky-Gallant et al., 2015). Overall, as a consequence of increased knowledge, educators may feel more familiar with ADHD-specific behaviors and more confident in their ability to adequately respond. Training programs are important not only for the future management of children in early care settings but also because educators can be utilized to help educate parents and the wider society and dispel myths concerning ADHD.

This study's results also show age as the only significant factor in ADHD knowledge. In particular, increased age was associated with increased educators' knowledge about ADHD. The role of educators' age concerning their knowledge about ADHD remains a controversial issue. While several scholars (see Al-Moghamsi & Aljohani, 2018; Saffan et al., 2017; Sciutto et al., 2000) have associated older teachers with increased knowledge about ADHD, other scholars have found the opposite (see Hosseinnia et al., 2020). An offered explanation for older educators' increased knowledge about ADHD is that probably older educators are more experienced and increased experience is linked to increased ADHD knowledge (see Saffan et al., 2017). Based on this assumption we could argue that older participants may feel more confident, experienced, and/or better qualified to understand for example why some children fail to comply with rules and requests or display 'unruly' behaviors. Given their experience with a larger number of young children, older participants may consider ADHD causes, symptoms, cognitive deficits, and interventions according to their experience about what is typical and appropriate for this particular age group. Thus, their knowledge might be influenced by their overall experience with children and their interaction with them.However, it should be noted that because educators are older this does not necessarily mean that they are also more experienced with children. Future studies should emphasize uncomplicating this relationship. Moreover, this study's results report participants' lower ADHD knowledge compared to previous data concerning Greek teachers' knowledge of ADHD (see Giannopoulou et al., 2017). This may be attributed to the fact that more than half of Giannopoulou et al. (2017) study participants were attending a postgraduate training course in special education. In addition, as regards this study's low alpha coefficients it should be noted that even though Cronbach's alphas are the common value stated for scale reliability, this value minimizes the internal consistency of scales consisting of less than 10 items (see Herman, 2015, p.8).

Furthermore, this study failed to find an association between years of teaching experience and knowledge. This result coincides with previous research data (Stampoltzis & Antonopoulou, 2013; Weyandt et al., 2009). However, other researchers report a positive correlation between ADHD knowledge and teaching experience (see Sciutto et al., 2000). The fact that the number of years of teaching experience and educational level did not affect ADHD knowledge in this study could be an indication of the necessity for educators to participate in education programs regarding inattention and hyperactivity behaviors. The implementation of educational programs related to ADHD may improve educators' knowledge about the

range of inattention and hyperactivity behaviors and subsequently their attitudes and intervention techniques (Pijl, 2010). Thus, a significant implication of this study is that early childhood educators would benefit from education, training, and possible consultation with mental health professionals providing them with adequate information about ADHD. This information could allow a more suitable response or intervention in incidents involving a child with inattention and hyperactivity behaviors or a child who fails to comply with rules and requests or displays "unruly" behaviors. Research data suggest that providing educators with training opportunities in the area of ADHD could increase their knowledge of such behaviors improving also their attitudes toward ADHD (Giannopoulou et al., 2017).

Another important point of this study is that educators' views on children's behavior cannot be understood without considering the educational and social context within which they are professionally educated and that ADHD diagnosis and treatment are culturally contingent, as suggested by Singh (2002a). This becomes more crucial since little is known about the level of activity, inattention, and impulsivity that should be considered "normal" in early childhood (Barkley, 1998). A practical implication of this study's results is that there may be a need for early childhood educators to be better informed about ADHD. This study also offers a broader cultural perspective since most of the research data regarding educators' knowledge of ADHD focus primarily on English-speaking countries (Flanigan & Climie, 2018).Overall, studies in this research field are significant since gaps in knowledge about ADHD explain the low levels of educators' confidence about their ability to successfully support children diagnosed with ADHD (Nur & Kavakci, 2010; Vereb & DiPerna, 2004). According to Bell et al. (2011) knowing the important aspects of ADHD reduces common myths and false perceptions and attitudes while at the same time knowledge about ADHD helps educators to feel more confident in creating a more positive learning environment.This knowledge may also help educators deal with ADHD difficulties during and outside classroom and reassure parents and students that they have an understanding of the disorder. Future studies could also address the role of children's gender in influencing perceptions of ADHD. All in all, this study contributes to the research on early childhood educators' ADHD knowledge and has implications for their training.

Limitations

This study was limited by the use of a convenience sample, of early childhood educators working with children aged 3–5 in urban early care contexts in the northern part of Greece. Results cannot be generalized to other geographical locations in Greece. The questionnaire used was a self-report questionnaire. While self-report questionnaires are easily administered and relatively easy to analyze, there may be a tendency to respond in keeping with socially accepted norms. No information was collected on teachers' access to specialized consultation concerning individual children or access to sufficient specialized resources, suggesting interesting directions for future research. Despite the above-discussed limitations, the current study is felt to be an important first step in assessing early childhood educators' ADHD knowledge in Greece and providing basic data for understanding their beliefs, attitudes, and possible intervention techniques within early care settings in Greece.

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Appendix: ADHD Knowledge Questionnaire (ADHD-KQ)

Q1. Children with ADHD present with hyperactivity, impulsivity and distractibility **T (True)[Symptoms/Diagnosis sub-scale]**

Q2. Children with ADHD are no different from their peers in their cognitive skills, they are just more lively and unruly. **F (False) [Cognitive/Learning sub-scale]**

Q3. ADHD is just as common in boys and girls. **F [Symptoms/Diagnosis sub-scale]**

Q4. Children with ADHD have good social skills. **F [Symptoms/Diagnosis sub-scale]**

Q5. Children with ADHD usually have cognitive deficits (e.g. memory). **T [Cognitive/Learning sub-scale]**

Q6. Children with ADHD usually have no problem with information processing. **F [Cognitive/Learning sub-scale]**

Q7. Children with ADHD have less activity in areas of the brain that regulate behavior. **T [Causation sub-scale]**

8. Learning difficulties of children with ADHD are primarily due to behavioral problems, such as disobedience, nervousness. **F [Cognitive/Learning sub-scale]**

Q 9. Students with ADHD can follow the instructionsand organize complex tasks if they really want to. **F [Cognitive/Learning sub-scale]**

Q10. Improper/inadequate parenting can cause ADHD in children. **F [Causation sub-scale]**

Q11. Pharmacological treatment sedates children with ADHD and makes them more obedient. **F [Management sub-scale]**

Q12. A child who concentrates on tasks of his choice, e.g. computer cannot have ADHD. **F [Symptoms/Diagnosis sub-scale]**

Q13. Pharmacological treatment has no effects for ADHD. **F [Management sub-scale]**

Q14. The child with ADHD needs nothing more than strict discipline. **F [Management sub-scale]**

Q15. Decreased learning performance is more associated with symptoms of hyperactivity and impulsivity than with attention deficits. **F [Cognitive/Learning sub-scale]**

Q16. The symptoms of ADHD change as the child grows older. **T [Symptoms/Diagnosis sub-scale]**

Q17. Child who doesn't show hyperactivity does not qualify for ADHD Diagnosis. **F [Symptoms/Diagnosis sub-scale]**

Q 18. ADHD is an exclusively genetic disorder. **F [Causation sub-scale]**

Q 19. ADHD is a short-term disorder that gets better with time and doesn't require any intervention. **F [Symptoms/Diagnosis sub-scale]**

Q 20. Learning difficulties are due to child's limited capacity to encode and retain information in their memory. **T [Cognitive/Learning sub-scale]**

Q 21. Sugar or/and additives intake is responsible for the disorder. **F [Causation sub-scale]**

Q22. Children whose mothers smoked during pregnancy are more likely to develop ADHD. **T [Causation sub-scale]**

Q23. ADHD symptoms are secondary to generalized or specific learning(e.g. dyslexia) disability or conduct problems, therefore the diagnosis of ADHD does not apply. **F [Symptoms/Diagnosis sub-scale]**

Q24. When there are problems in the family (e.g. disturbed family relations, marital conflicts) it is appropriate to intervene in the family and not in the child to deal with ADHD. **F [Management sub-scale]**

Q25. If the child responds to medication, educational interventions are not necessary. **F [Management sub-scale]**

Q26. Children with ADHD have no difficulty maintaining motivation for activities that offer, albeit delayed, reward or pleasure. **F [Causation sub-scale]**

Q27. Students with ADHD require the same teaching strategies as other students. **F [Management sub-scale]**

Q28. Modifying the classroom environment worsens child's behavior with ADHD. **F [Management sub-scale]**

Q29. The teacher's role is limited in helping a student with ADHD. **F [Management sub-scale]**

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Re-defining silence in unvoiced dialogues in storying-play: The sound of affects

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Abstract: This article chronicles three stories selected from a post-intentional phenomenological study conducted by the first author. The authors aim to investigate affective connections in children's silent play by addressing three research questions: (a) How do children engage in dialogue with the teacher, their peers, and the material environment without words? (b) What emotions are produced in silent play? and (c) What changes in children's affective connections occur through silence? We drew on the notion of intentionality in post-intentional phenomenology to illuminate meanings of the phenomenon for individuals about what they felt and experienced. With a focus on intentionality, we delved into the ways children meaningfully communicated with others and connected to the environment in their unspeaking moments. We also took on a posthuman notion of intra-actions to rethink silence as an inaudible yet sensible sound communicated between children and things. The prior studies showed that children's silence was a mode of expression. Through storying the silent play-stories, we offered two alternative meanings of silence—intra-active communication with people and things and inaudible inner wellbeing, in addition to a mode of nonverbal expression as identified in prior studies. The findings are significant in enriching and renewing our understanding of children's silence in inclusive ECE environments. Silence is re-defined as a mode of embodied communication and affective connections. This article invites researchers and educators to genuinely "listen" to children's stories, even in silent play.

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Introduction

"Do feelings have a sound? Even silence has a sound" (Shallcrass, 2020, p. 12). This children's book excerpt serves as the entryway for the story of this research. The silence of unspeaking children is inequitably viewed as problematic: absence of speech and meaning, communication disorder, or resistance to engage (Martín-Bylund, 2018; Wohlwend, 2009). Educators who read silence as empty of knowledge might menace children's learning by moving them "from a state of emptiness to a state of fullness by reformulation and amplification" (Clay, 1985, p. 35). The perception of quiet children is connected to system inequalities that privilege speakability (Watson, 2020). Silence has been a subject of research in numerous fields. Some researchers construed students' use of silence as strategies for learning (e.g., Bligh, 2014; Shi & Tan, 2020) and challenged the silencing of children's voices in classroom practices (Yoon & Templeton, 2019) and research landscapes (e.g., Artiles et al., 2016; Mazzei, 2003), giving voice to unspeaking children from a rights-based position. Silence is not "a void to be filled, a wound to be healed, a flaw to be repaired" (Greene, 1993, p. 14). Quiet children do not necessarily have "less language" nor are "emptier of language" (Cazden, 1970, p. 35) than their peers. Rather, their silence is a possibility for learning, not an absence (Poland & Pederson, 1998). Their silence is a mode of nonverbal expression

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(Wormald et al., 2012) and a strategic response to learning (Shi & Tan, 2020).

Research on children's silence in early childhood education (ECE) settings has been emerging, albeit scant. In a bilingual (Spanish-Swedish) ECE setting in Sweden, Martín-Bylund (2018) examined Lina's mute response to her teachers who were serving porridge and water. In front of a plate of porridge and an empty glass, Lina was not eating. The teachers intermittently asked if she wanted water. Lina responded differently to the Spanish-speaking and Swedish-speaking teachers. The Swedish-speaking teacher interpreted her silence as lacking language competence and disregarded what Lina needed. The Spanish-speaking teacher, contrarily, recognised Lina's nodding and head-shaking as communicative responses and continued interacting with her. The teacher noticed Lina's concentration on the water movement from pitcher to glass and thus supported her water pouring with prompts. The author analysed silence in three dimensions: communication, strategy, and intensity. Lina used nonverbal *communication* to express her wants. Her response was interpreted as an avoidance *strategy* (e.g., avoiding being evaluated on speaking the wrong language or being forced to drink water). *Intensity* was considered to note the aspects of the environment that were sufficiently powerful to draw Lina's silent concentration; for example, the smell of porridge or the absence of water in the glass. Martín-Bylund's study influenced our analysis of silence to shift from deciphering individuals' intentions to exploring possibilities from the interconnected collective, including the environment, using a posthuman approach. Her study also added to the sophistication of our investigation through the deeper analysis of multiple aspects of silence (i.e., communication and connections with the environment).

In an Australian ethnographic study conducted in three inclusive classrooms, Watson (2018) used Foucauldian discourse analysis to examine exclusive experiences illustrated in two stories of silence. In one story, children and parents quietly moved through a situation where a child, othered by medical discourse ("*the child*"), was crying to resist entering the building. In another story, children named everyone they saw in a picture except *the child* to avoid divulging their perceptions of difference. Their silence was presented in long pauses, uneasy body movements, squirming in seats, and many "ummm's". Watson's analysis revealed "othering" effects and inspired us to notice silent moments performed by those who engaged with the othered children. These two studies primed our analysis of interactions between children and people who were verbal-yet-unspeaking, as well as possible connections with things that matter in the silent moments. Humans and things can exercise their agency to communicate in inaudible modes, highlighting that silence is relational and transformative. Children's feelings and capacities to make changes that were manifested in silence, however, were of less interest in these prior studies, leading us to focus on the affective aspect of wordless play.

In an empirical study of children's storying conducted by the first author (Li, 2022), silence was a significant manifestation across the stories shared during play. In this article, the authors selected three stories to illustrate the phenomenon of silence and affective nature of children's storying. We wondered about the affective connections in children's silent play and pursued the following research questions:

- How do children engage in dialogue with the teacher, their peers, and the material environment without words?
- What emotions are produced in silent play?
- What changes in children's affective connections occur through silence?

The inquiry draws on the post-intentional phenomenological, posthuman, and strengths-based perspectives to examine children's silent stories. With these perspectives, we delved into the ways children meaningfully communicated and connected with others and the environment in their unspeaking moments. Thinking of silence through the posthuman notion of intra-actions opened our noticing to the inaudible yet reasonable communication between children and things. By illustrating the three stories, we disrupt the inequitable understanding of children's silence. We accentuate children as communicative and affective beings. By probing affective connectedness, we offer two alternative meanings of silence—as intra-active communication with people and things and as inaudible inner wellbeing, in addition to a mode

of one-side, nonverbal expression as identified in prior studies. The findings are significant to enrich and renew our understanding of children's silence in inclusive ECE environments.

Theoretical Framing

Storying is a phenomenon of children's everyday experiences in living and imaginary worlds. Post-intentional phenomenology (Vagle, 2018), a variation, was adopted as a philosophical perspective and methodological approach to examine children's storying experiences. Husserl's (1913/1963) descriptive paradigm on the essence of phenomena and Heidegger's (1927/1962) interpretative understanding of lived experiences as phenomena focus on what things are. Post-intentional phenomenology, focusing on how things connect, is used to study the connectedness around the manifestation, in this case, the *silence*. From a post-intentional perspective, things are interconnected in unstable, changing, and fleeting ways. Silence, in this sense, is conceptualised as continually fluid, shape-shifting assemblages interacting with the world, rather than a stable essence.

This perspective aligns with posthuman thinking in which children's sense-making develops through relationships of different bodies and in ongoing intra-actions with the material environment (Somerville, 2020). Intra-actions, a concept introduced by Barad (2003), refer to co-constitutive relations between humans and nonhumans. Humans and nonhumans (e.g., materials, ethos, contexts) are intra-acting bodies, which are constantly exchanging and diffracting, influencing and engaged in co-agentic ties with the world. The agency of silence is not only human-centric; things also have the capacity to "speak" *to* and *through* humans. In post-intentional and posthuman senses, we attempted to notice "unfinished configurations of places, times, matters, meanings" (Haraway, 2016, p. 1) by engaging with "messy, difficult, and ethically complicated matters that merge" (Murphy, 2020, p. 27) and exposing possibilities that are "hidden as an absent presence" (Nxumalo et al., 2018, p. 443). We aimed to craft the connectedness between children and their storied worlds with us as researchers in the process of becoming and living. We also used notions of embodiment and affects to examine children's silence during storying-play. Children's silent play is conceptualised as a way of embodied storying situated in intra-actions with themselves, their peers, teachers, and environments. The wordless intra-actions were conceived as silent dialogues that encompass reciprocal listening and responding.

We took a strengths-based stance to understand silence. We affirmed the capacities of different silent storying bodies (i.e., children, peers, teachers, and things) regarding what they are able to do, be, and become, thus recognising them as agents in their daily lives (Wehmeyer & Kurth, 2021). We also acknowledged children's active, silent engagement and communication in their day-to-day experiences. The authors aim to renew the meaning of silence as strength, noticing children's capabilities and capacities in affective connections. The affective nature of silence was highlighted through children's embodied storying and play. Listening to silence from a strengths-based perspective allowed us to hear the sound of joyful resonance and to understand children differently. The wordless intra-actions were conceived as silent dialogues, highlighting reciprocity and communication.

Conceptualising the Notions of Affects and Embodiment

The terms "affects", "feelings", "emotions", and "sensations" are often used interchangeably, although differentiated by others. Affect, as a *verb*, means to influence someone or something emotionally. As a *noun*, affect refers not only to *feelings* that are overtly expressed in communicative contexts (Du Bois & Kärkkäinen, 2012) but also *capacities* that change thoughts and actions of self and others. In Deleuze and Guattari's (1987) words, the capacities to affect and be affected are the influence bodies have upon other bodies and evoked from memory, experience, thought, and habit (Massumi, 2002). The *adjective*, affective, describes something that evokes emotions or feeling-driven actions. Affects are inherent in the notion of embodiment in post-intentional phenomenology. Humans connect with the more-than-human world through gestures and movements to dynamically unfold meaningful actions (Goodwin, 2015) and to understand emotional experiences of selves and others (Merleau-Ponty, 1945/2012; Vagle, 2018). *More-than-human* (Abram, 1996) is a posthuman term used to convey that more is happening beyond the human social realm (Murphy, 2020). Children communicate in various rhythmic and embodied ways of thinking and

feeling that extend beyond words (Alcock, 2016). For example, children follow soothing music and slowly put their heads on cushions to denote falling asleep or show emotional intimacy by hugging others. Silence is more than heard; its presence is sensed through bodies. In an Aotearoa New Zealand study, Bateman (2020) examined children's displays of emotion through their everyday stories. Humour, sadness, and disgust were affects identified in the children's verbal telling and the recipients' multimodal responses such as voice prosody, physical positioning, pauses, gaze, and facial expressions. The examination of multimodal ways of expression offered insights to probe children's affects in silent dialogue in our study.

Children's affects circulate and influence day-to-day intra-actions. Affects pass from body to body and the resonance flows between bodies and the more-than-human world (Seigworth & Gregg, 2010). For instance, when a child is sobbing, another child gives a warm hug and talks calmly, and the tissue paper supports the comforting child in wiping the tears. The tissue paper becoming overly wet is a caring reminder to use a new piece. The sobbing child feels the empathetic affects and returns a hug and smile to another. The empathy spreads among the children and tissue paper. Affects are essential in determining relationships between bodies and the experiences of what bodies feel and think. The posthuman notions of intra-actions, embodiments, and affects frame what and how we read silence; leading us to focus on children's inextricable connectedness with their surrounding world and the affective experiences that might influence their relationships.

Listening to Silence in Everyday Storying

Children's affects are embodied in silence, which can be heard in their everyday storying. Everyday storying is the real-time authentic action of crafting, making meaning of, and expressing experiences (Bruner, 1990; Engel, 2005) and imaginations (Engel, 2013; Paley, 2004). Children's storying occurs anywhere, any time when they encounter, fantasise, say, act, and create something, alone or with others. Everyday stories, the chronicles of storying acts, are situated in playing, conversations, and visual creations. In this article, we focused on storying-play, a combined term used to highlight *play* as one form of children's everyday *storying* and interconnected relationships. Play is a natural storying space for children to make sense of their worlds and explore relationships, thus shaping who they are and who they will become. We adopted the notion of storying-play as a non-intrusive way to explore and listen to children's voices (in silence) in their everyday worlds.

Methodology

This article illustrates three stories drawn from a larger post-intentional phenomenological study of children's everyday storying. The study was conducted in four inclusive ECE settings: two kindergartens in Aotearoa New Zealand (NZ) and two classrooms in one kindergarten in Hong Kong (HK). The first author had practical experience in both geographic contexts and all authors' had combinations of teaching and research background in inclusive education with young children. The authors come from various cultural, professional, and research backgrounds, including literacies learning and leading, arts-based practice, dance and drama in the early years, Indigenous philosophy, and early childhood inclusion, inform the research process collectively and critically. Together, our diverse mix of voices lead to rich, multifaceted interpretations of the silent stories. The four settings adopted play-based learning, which represented a crucial part of the storying space, and shared a stance on embracing diversity, especially relative to varied abilities and cultural and linguistic backgrounds. The first author engaged with children (n=64), educators (n=13), parents (n=12), and the environment for 4–6 hours per day for approximately 10–12 days over 4–5 consecutive weeks in each setting. The research process followed the university's ethics guidelines by ensuring voluntary participation with children's assent and informed consent given by parents (for children) and teachers. Pseudonyms are used for all settings, children, and teachers. We followed Dahlberg and Moss' (2005) ethical thinking in the research process. We adopted a relational data-collection process by engaging with children, educators, and the environment in conversations and playing. We were sensitive in gathering storying moments by following the children's lead. For instance, when the children stated something like "Don't *look*" or avoided being followed, the researcher would stop recording; when the children extended invitations like "*Come, join us*, "*Follow me*", or "*Can you video me doing that?*", the

researcher would engage in their storying as a partner. Children were involved in the research process as active storying-players and meaning-makers. We positioned ourselves as learners by following our participants' lead to understand and acknowledge what was previously masked by cultural and linguistic bias (Arya, 2021). With a post-intentional phenomenological approach, we did not start with focal children to follow their lived experiences in silence. Simply put, we did not search for causation—to identify factors that caused children to be silent. Rather, we probed the affective entanglements within the intra-actions among children, educators, and things in the silent play, opening up possibilities that could produce or could be produced by silence.

Children's everyday stories—the happenings relative to children's doing, saying, experiencing, imagining, and creating in their daily lives—were identified through observations and interactions and documented in audio and video recordings, fieldnotes, and photographs. A total of 297 stories were gathered. Although often short and fragmented, each story consisted of *events* (settings and plots) and their flow of events that are related to or carried out by the *actants*—protagonist(s) and things in "rich multi-species assemblages" (Haraway, 2015, p. 160). Aligned with the posthuman sense, things carried agentic roles in storying. When either events or actants changed, the story was counted complete, and perhaps another story started. Each dataset also included views about children's storying that were shared in group informal interviews with teachers (one per setting) and intermittent, informal conversations with teachers and parents. Of the 297 stories, one-third were categorised as storying-play, meaning that stories were identified when children engaged, alone or with others, in exploratory, physical, fantasy, constructive, language play and rule-performed games. Thirteen play-stories were signified as "sustained silence", denoting that the protagonist was unspeaking throughout the story. We selected three stories to illuminate the affective connections in children's silent dialogues during play, using an inductive approach to data analysis. The three stories shared the assemblages[1] of *sustained silence* throughout the whole story, silence performed by *all intra-acting bodies*, *all verbal but unspeaking*, and *back-and-forth communications*; and individually illustrated the dialogic intra-actions in the form of silence with *educators* (Story 1), *peers* (Story 2), and *things* (Story 3).

Post-intentional phenomenological analysis with posthuman thinking did not involve fixed step-by-step procedures. We did not precisely identify procedures in advance. Rather, we were mindful of our languaging that was woven throughout the analysis to reflect the inherent research design based on the post-intentional frame. We brought our careful reading of phenomenological materials (i.e., datasets) into dynamic dialogues with theoretical concepts and reflexive engagement to craft children's storying experiences. Drawing on this analytic approach, we as researchers regard "dynamic intentional relationships that tie participants, the researcher, the context, broader social issues and matters, the produced text and their positionalities together" (Vagle, 2018, p. 32). Our engagements in the silent dialogues became part of the phenomenon. Hence, our roles and relationships morphed in gathering and interpreting the observational data and the writing of intra-active entanglements. These dynamics shaped our observation and interpretation, offering a possible manifold out of infinite dimensions of understanding silence. Stories 1–3 incorporated our continual reflexive engagements with the data, which were reflected in story analyses. The reflexive engagements involved documenting, wondering about, and questioning our connections, assumptions, and unexpected moments. To honour the fluid and ever-changing nature of understanding a phenomenon, we tentativised our noticing and interpreting throughout the article.

We thought with the posthuman notion throughout the analysis to highlight the relational entanglements within the intra-actions among children, eductor, and things in the silent play. Story 1 exemplifies the silent engagements between a quiet child and her teacher. Story 2 demonstrates wordless interactions between an emergent bilingual and a verbal peer. Story 3 highlights the inaudible dialogue between an unspeaking child and his nonhuman storying partners. Silence was produced not only by the protagonists but also their peer and teacher, although all were verbally competent. The silent storying-play

[1] The concept of assemblage developed by Delueze and Guattari (1987) refers to a process of temporary arrangements or constellations of objects, expressions, bodies, qualities and territories that create new ways of functioning.

ranged from 10-20 minutes in length. We adopted an inductive analytical process, commencing with observations of specific storying instances with silence and then moving from affective experiences to general sets of propositions about those experiences. The following sections depict the setting, protagonist and intra-acting bodies, and the three stories of silence. Each story concludes with an analysis that describes the meanings of silence, children's affects in silent play, and the influence of silence has on the children and other bodies.

Story 1: Child–Teacher Dialogues

Stories 1 and 2 take place in Kākābeak Kindergarten located in an Eastern suburb in Auckland, NZ. Approximately 20 children aged 2-5 come to Kākābeak daily from 8:45 a.m. - 2:45 p.m. Except for the mat and meal times, children are engaged in free play consistent with *Te Whāriki* (Ministry of Education, 2017), NZ's early childhood curriculum. Qian, an emergent bilingual, is a Taiwanese girl who speaks Mandarin Chinese at home and has attended Kākābeak for two months. She understands but seldom speaks English. The teachers describe Qian as happy and quiet, always laughing but not talking. Instead of joining in social play, Qian briefly observes from the side-lines and then moves to watch other groups playing.

Story 1 starts with Qian's invitational gaze and Brooke (the teacher) 's affirming response. In the morning, Qian wanders around Kākābeak, searching for exciting things to do. At approximately a two-metre distance, Qian stares at Brooke, who sits on the sandpit edge watching children play. Brooke amiably responds to Qian's stare, "*What a nice walk under the sunshine, isn't it, Qian?*" Their silent dialogues begin:

> Qian stops sucking her thumb, halts in front of Brooke, and returns with a shy smile. Qian taps her fingers on both hands like clapping, and Brooke follows. Qian keeps doing the finger-tapping with different rhythms, and Brooke mirrors her. In every mirroring turn, Qian moves closer to Brooke and her smile becomes bigger. This story tentatively "ends" with Qian and Brooke having several high-five claps accompanied by Qian's chuckle.

Intertwined Affects in Silence

Affect is housed within embodied sequences of action (Goodwin, 2000). A mix of affects—uneasiness, wondering, excitement—might have been portrayed as embodied in Qian's gazing, smiling, tapping, and approaching to engage with Brooke. In her wandering, Qian hovered around the sandpit and appeared to want to connect with someone. Her thumb-sucking unmasked her discomfort of not knowing whom and how to join. Thumb-sucking was Qian's everyday action, which might signal her insecurity in the new environment. The moment Qian connected with Brooke seemed to be a turning point for Qian to stop thumb-sucking for self-soothing.

Amid her unease, Qian showed a desire to connect with Brooke. Despite the distance, Qian's intense stare served like an invitation for Brooke to play together. In our observation, the silence in the form of gaze can speak; Qian's eye contact involved "talking" to the teacher without words and her inner self-talk. We read Qian's gaze as if she asked, "*Can we play together, Brooke?*" and said to herself, "*I hope Brooke can play with me… Should I go to her?*". Qian's wondering emotion was conveyed, to us as reserachers, in her gaze-talk. Brooke noticed Qian reaching out to her and responded with a warm greeting as an acceptance of the play invitation. The kick-off of the storying-play marked an affective change in Qian, as a smile replaced her often inexpressive face. The variations in tempos and rhythms of finger-tapping possibly showcased Qian's playfulness as her delight increased with each finger-tapping turn.

Attuned and responsive interactions without words can be vibrant, like oral communications (Delafield-Butt et al., 2020). Brooke did not know Qian's home language. Neither did she initiate verbal dialogue in English. Rather, Brooke engaged with Qian in mimicry, following Qian's flow of storying-play. At each turn, Qian first looked at Brooke as a signal to start her idea, initiated the fingers-tapping with a slight variation, and rewarded Brooke's engagement with a smile. Brooke mimicked Qian's friendly gaze, funny finger-tapping, and beaming smile as the sequence of connected responses. Gibbs (2010) termed mirroring actions "mimetic communication", also known as mimesis. The joyful interactions between Qian and Brooke were a form of mimesis, like back-and-forth conversations that served as a hinge between communication (a way of interchanging meanings) and language (codes to transfer meanings).

Silence as a Carrier and Generator of Affects

Unlike mechanical copying, bodily mimicking (of gazes, smiles, gestures, and movements using body parts) encompasses the aspect of affect. The mimicking activates what Gibbs (2010) described as the mimetic impulse of listeners-in-dialogues, eliciting the same affect within the listeners. Finger-tapping mimicry perhaps created a pleasurable sensation for both Qian and Brooke. The reciprocal interactions likely facilitated Qian's positive shift from discomfort to excitement. Her happiness seemed to be transmitted to Brooke. As Brooke indicated, she cherished the opportunity to get closer to Qian in the silent play. Joy circulated between them in this brief quiet episode that was full of meaning.

This moment of silent dialogue might have created several breakthroughs. For Qian, her silence was heard and valued. A sense of belonging was seeded, evidenced by the cessation of thumb-sucking. Their mutual bond was strengthened in this brief, unanticipated, and precious interaction. Brooke noted that this was the first time she had closely interacted with only Qian. In the subsequent weeks, Qian initiated other interactions with Brooke, giggling together as they acted silly or made funny faces and proudly showing her achievements such as solved jigsaw puzzles. Qian extended this possibility to building peer relations. A week later, Qian became a friend of several children who always played together. She used her humour as she did with Brooke to get acquainted with her peers. Laughter could often be heard within the group. Laughing together and entertaining others are ways that children get to know the funny side of situations and their peers, adding to their sense of belonging and leading to closer friendships.

Story 2: Child–Peer Dialogues

Story 2 involves two protagonists. Stella speaks mainly Cambodian and sometimes English. Stella is relatively new (2 months) at Kākābeak. Her teachers described Stella as a cheerful and chatty girl, although people barely comprehend her one-beat-long vocalisations. Jay is a Pākehā/European New Zealand boy who is verbal with a soft voice and often engages independently in block-play.

While Jay is playing alone with a big toy fire-engine, Stella sits beside him, watching Jay play. Their unspoken dialogue transitions into their joint play:

> Stella utters "*Ah?*" with her hand moving from low to high. Jay extends the tower ladder of the fire-engine. Stella moves her hand much higher, vocalising like "*Ai?*", Jay extends the ladder even taller, vertically, and tilts his head to seek Stella's affirmation. Stella returns with a smile. Next, Stella gently shouts "*Ah?*". Jay looks back at the fire-engine and turns on the siren light. Stella laughs. Then she moves her hand horizontally in the air, vocalising like "*Woo!*". Jay pushes the fire-engine forward. Stella does a hooray hands-up. The story pauses at the sound of the hand-bell ringing to signal mat-time.

Multisensory Pleasure in Silence

Stella sitting close to Jay seemed to be a way to immerse herself into the fire-engine story, respectfully indicating her presence without interrupting. Her quiet observation might reveal her desire for fun by playing with the fire-engine with Jay. Their series of actions were like dialogues, not in words but composed of *hand movements* (e.g., stretching the arm up to indicate "extending the ladder higher", moving the hand horizontally to signal "moving the fire-engine forward") and *object manipulations* (e.g., lifting the ladder, turning on the siren light). The silent dialogues also encompassed *facial expressions* (e.g., smile, laugh), *gazing* (e.g., at the teller, at the movement), and *gestures* (e.g., head tilting, leaning forward). These multimodal features in actions seemingly carried universal meaning, as Du Bois and Kärkkaäinen (2012) termed the "indexical cues for affect" (p. 435). More importantly, these cues indicated relationships, engagements, and interactions—the affective connections that need to be acknowledged.

One conceivable sentiment that Stella and Jay might have shared in their silent dialogues in actions is pleasure. Despite the language challenges, Stella endeavoured to vocalise her limited language together with hand movements to possibly make her expressions decipherable. From an assertive lens, we recognised Stella's leading the story plots by suggesting play ideas (e.g., elevating the ladder, activating the siren) using various communicative modes. The dynamic flow of the collaborative storying with Jay seemed to amuse Stella, based on her smiles and continuous play initiations. Jay's communicative

sensitivity meaningfully contributed to their story. Jay, who was verbal, joined the dialogue with silence alongside Stella. Whenever Stella initiated a play idea, Jay disregarded the possible frustration of not comprehending Stella's messages. Rather, Jay closely "listened" by intently looking at Stella's nonverbal expressions and carefully responded by operating visual effects and subsequent movements to attune to the mimed story. Jay's silent way of engaging with Stella in play can be taken as an indexical cue for affect, possibly conveying a pleasure to portray himself as a responsive fire-engine operator, to communicate in a common (embodied) language, and to collectively contribute to the richness of the storying-play with Stella.

Silence as a Catalyst for Building Peer Relationships

The story was originally two separate self-exploratory play episodes: Stella searching for an interesting activity to join and Jay investigating the fire-engine's functions. In a posthuman sense, the sensorial experiences created by the fire-engine and Jay gathered them together with Stella for evolving another co-storying moment. The strengths-based lens prompted us to see the acts of kindness that transfused through silent dialogues by Stella (respectful presence) and Jay (sensitive noticing and responding in actions), making their storied world a more belonging place. Their kind acts boosted their affinity as playmates, authoring and contributing to the storying-play. The collective storying might have intensified the children's sensational satisfaction, making this play more entertaining with multisensory effects of light and motion. Given their mindful use of silence, we read that both children recognised each other's presence, noticed mutual capabilities and contributions, and responded with allied actions. This small story marks a possible co-authorship; the two protagonists demonstrated how a strong culture of belonging could be created between young children.

Story 3: Child-Environment Dialogues

Story 3 takes place in Room Magnolia in Bauhinia Kindergarten, in which a play-based curriculum is adopted appertaining to the *Hong Kong Kindergarten Curriculum* (Curriculum Development Council, 2017). Located in a small suburb in HK, China, Bauhinia houses six classrooms with three grades (K1-K3) in a same-age grouping for 100 children aged 3-6. Magnolia is the hub for 17 children and two teachers, learning and playing together between 8:45 a.m. and 4:45 p.m. Cantonese is the primary language. Children have Mandarin and English lessons once a week. Yu was born and raised in HK; his parents are migrants from mainland China. One teacher describes Yu as a nice boy with communication delay who has difficulty understanding what people mean and responds slowly. Yu can but seldom talks. Another teacher suggests that his communicative incompetence created a wall blocking him from getting along with others.

The story starts with Yu choosing to make paper-springs, one of four self-selected group activities. Paper-springs are a paper craft which involves interfolding two long strips of paper to provide a springy effect. Unlike other children who make paper-spring necklaces following a teacher-made model, Yu produces a long paper-spring to use as a cardboard figure's (thereafter as "figure") extended leg. The inspiration might come from the display board where a figure is exhibited, whose body is made of corrugated paper taken from a carton box and the legs from green scrap paper. The dialogue with the figure begins in Yu's changing plots of this paper-spring story:

> Yu proudly pins his long paper-spring on the figure. The figure seems to dislike the leg because it keeps coming off. Yu makes it a long arm instead across the figure's body. While Yu is carefully checking and trimming any frayed paper edges, the figure suddenly falls off the board, hanging on the paper-spring. Yu seems to imagine a scene of the figure sleeping in a hammock. After a minute of pondering, Yu removes the figure, sways the empty hammock several times, and then replicates the hammock's movement by swaying his body. With another child's admiring "*wow*", Yu crawls through the hammock and sways alongside it. Soon after, Yu cheerfully skips toward the teacher, leading to a tentative ending of the story.

Satisfaction in Silence

The story goes beyond simply making a paper-spring; it involves a dialogic intra-action between a child and things (i.e., figure, paper-spring). Their dialogue is inaudible yet can be felt and sensed. Seeing from a strengths-based lens, we recognised that Yu's curiosity to explore and sensitive noticing of the

surrounding environment led to his connection with the lonely figure who remained on the board for two days without being visited. Yu's trimming frayed edges on the paper-spring might be a sign of caring for the figure. If the goal was to ensure the paper-spring and figure was pinned stably, the continuous dropping could be discouraging to Yu. This possible frustration did not seem to hinder Yu's engagement. His intra-action with the paper-spring arouse our *thinking differently* as in post-intentional phenomenological philosophy. With his careful "listening", Yu might have read the figure's negotiation: whether the paper-spring would be a leg or arm and whether the figure or Yu would sleep in the hammock. The figure and paper-spring form part of the assemblages like humans, coexisting in the state of becoming.

We conceived the moment of pondering as Yu's silent talk with the figure and himself. Through the falling-off, the figure might have declared, "*I don't like sleeping in a hammock*", causing Yu to remove the figure from the paper-spring. The figure's withdrawal possibly provoked Yu's self-talk, "*I like playing in a swing…why not give myself a go*". The change of facial expressions (i.e., from a puzzled gaze to a satisfying smile) embodied Yu's enthusiasm to immerse in the swinging story. His trajectory of talk in silence entailed a strong connection with paper (figure, paper-spring)—things that are little and ordinary yet meaningful to Yu.

An Inaudible Charisma of Silence

Silence speaks for a child's hidden talent. Yu's unswerving concentration and boundless creativity are embodied in the transformation of the paper-spring. Yu instilled his meaning in the task, not copying or following others. His peers' intermittent coming and going and annotations (e.g., "[*the figure] is sleeping*") did not distract Yu's concentrated engagement with the paper-spring. Yu quietly listened and thoughtfully compiled and filtered peers' ideas into the story. Yu's creativity was exhibited in his vivid plots: transforming the leg into an arm for the figure, helping the figure escape from the hammock, testing the swaying motion of the empty hammock, and immersing himself in the swinging hammock play-story. The self-directed play offered Yu a space to explore and extend the possibilities that things could act. Things, from a post-intentional perspective, are fundamental in children's everyday experiences. The paper-spring was the performative agents that elevated Yu's affective experiences. The oscillating and stretchable motions might be fun, attracting Yu to hold, bounce, and play with the paper-spring continuously. Its lengthening without breaking could reinforce Yu's sense of achievement. The swaying motion might evoke Yu's pleasant swinging memories, according to his contented smile. All these connections aroused Yu's satisfying experiences, rewarding his seriousness—the absorption in playing with the paper-spring. The silent dialogues between Yu and the paper vividly demonstrated their strengths in transforming each other into possibilities.

Yu's fascination with the paper-spring has affective influence on his peers. His creation not only gained the teacher's acclaim but also drew two girls' attention to "help" him extend the paper-spring. The girls excitedly imitated the way Yu combined short pieces of paper-spring into a long one along the paper-arm. Yu did not tell them what to do. Rather, he subtly demonstrated his enthusiasm for making sense of things in his focused play. Silence has the power to captivate others to contribute to the storying-play. A sense of satisfaction was spread from Yu to the girls who enjoyably lengthened the paper-spring alongside Yu. The peers' pleasurable participation is a form of recognition, offering an "affective approval or encouragement" (Honneth, 1995, p. 95) for Yu's and their capabilities and contribution. Through collective storying, Yu, his peers, the figure and paper-spring distribute the happiness by affirming each other's engagement and thus sustaining their storying-play together.

Discussion: Unvoiced Messages of Silence

Silences are unvoiced yet powerful messages, highlighting "hidden" possibilities in children's living and imaginary worlds. The analysis demonstrates how children enacted their affective experiences in silence through their storying-play. Based on the analysis across the three stories, we synthesised two alternative meanings of silent dialogues: as non-vocal communication and inaudible engagement and as inner wellbeing.

Finding 1: Silence is more than a one-way mode of expression; it is a form of storying, embodying children's reciprocal communication and engagements.

The silent dialogues in the three stories are characterised as inaudible communication and engagements. Silence in a communicative aspect is a manifestation within intra-actions between children, their teacher, and things. The protagonists, who said nothing throughout their stories, all engaged as active storying-players and competent communicators to imagine and make meaning of their worlds. This noticing aligned with prior studies that silence is viewed as an non-vocal expression. The three stories further accentuated the reciprocal communication, which were enacted not only by the protagonists but also their storying partners. The teacher, peers, and things intra-acted with the quiet protagonists in silent communicative modes. The children used gazes, smiles, and bodily movements to initiate and reinforce dialogic communication. On the other hand, the reciprocal gazes, gestures, and movements acted by their storying partners made the storying-play fun and connected. These non-vocal communication played multiple roles. First, it enhanced different bodies' mutual relationships in a relaxed way. The fingers-tapping (Story 1), the hand-movements and the fire engine's visual effects and movements (Story 2), and the child's, the figure's and paper-spring's movements (Story 3), which were produced in silence, created playful engagements between the children and their human and nonhuman partners. The voluntary use of silence creates a shared language between storytellers and listener-responders. Communicative mimicking, multisensory responses, and modifications based on close listening form parts of this language. Silence serves a unique function—equalising the communicative membership. Instead of performing a superior status of dominating the play with speech, the verbal listener-responders of the story can share the same-status relationship with the unspeaking children by reciprocating with interactions and valuing the different ways of embodied communication. Second, the silent dialogues revealed that children's sensitivity to their surroundings, creativity, and persistence to achieve goals and transform ideas are embodied in their storying-play. The stories showed that children often express the subtlety and sophistication of their understanding through silent modes. With a strengths-based interpretation of children's resources (Gaffney & Jesson, 2019), the protagonists and storying partners in the stories articulated their capabilities to navigate, create, imagine, and transform their worlds wordlessly. Silence is always present, calling educators to attend to the strengths in children's unspoken voices.

Finding 2: A sound of affects is created in silence through intra-actions between children and their storying partners.

From a post-intentional phenomenological perspective, we focused on how humans and things connected in silent storying-play. Noticing the non-vocal dialogues allows us to understand children's inaudible inner states. While acknowledging the presence of affects in children's social lives, we as researchers encounter the challenge of never knowing children's inner states of affects. The focus of investigating children's affects was, therefore, not to prove whether authentic emotions are revealed. Our interest was to approach children's storying worlds through their display of affects that is emergently shaped by and itself shapes the unfolding development of interaction (Wu, 2004). Children connect with the world through their affective presence. If silent children do not talk about their feelings it does not necessarily mean that they do not have the ability to express their emotions. Together with their storying partners, the children made their affective voices perceptible, albeit inaudible. For example, the connections between Qian and Brooke were made through playful finger-tapping together, creating entertaining moments. Stella, Jay, and the fire-engine jointly exhibited multisensory pleasure in the story. Yu demonstrated his idiosyncratic ideas with the figure and paper-spring with satisfaction. Happiness swells in a mix of reciprocal smiles and laughter, bodily mimicking, joint contribution, and friendly negotiation. Accordingly, silence is re-defined as inaudible inner wellbeing. The silent intra-actions are quietly processed in partnership with peers, teachers, and the environment. The play stories went beyond children doing something with things (e.g., the fingers, fire-engine, or paper-spring). Things such as fingers, fire-engine, and figure and paper-spring played the central role in the affective connections between the quiet protagonists and their silent partners.

Implications

Do feelings have a sound? We heard the sound of silence—children's joyful resonance shared in-between the child–teacher, child–peer, and child–environment intra-actions. Joy does not reside only in individual children; it has a resonant and reciprocal effect, generating to and from one another. The dialogues in silence are portrayed by a playful acquaintance, multisensory pleasure, and satisfactory achievement. Prior studies showed that children utilise joyous resources to create friendships (Karjalainen, 2020) and to maintain social bonds (Pawłowska, 2020). The three contributions from our study are: (a) The social bonding is not restricted to their teachers and peers but includes things that are meaningful to the children; (b) The joyous resources can be shared in silence, not only in verbal conversations; (c) children co-created a rhythm to maintain excitement in their play-world, not only with peers as Trevarthen (2011) suggested, but also with teachers and their material environments.

Silence's Power to Affect

Silence is contagious for a good purpose; it communicates and motivates others to reciprocate feelings. The three stories illustrated that enthusiasm, creativity, and playfulness could be transfused through silent play. Children's storying-play might sometimes appear purposeless through adults' eyes. For children, joy serves as energy to motivate themselves and others to connect with different worlds, although other affects such as discomfort or frustration might be experienced in-between the joyful intra-actions. Children's feelings are "folding into others, resonating together, interfering with each other, and mutually intensifying" (Massumi, 2002, p. 1) without words. In a post-intentional sense, these affective exchanges in storying-play are a space where children and things notice and recognise their own being-in-the-world and shape their contextual relations with different bodies (Acheson, 2008; Vagle, 2018). Silence is significant when people and things react to it together. Through collective storying in silent dialogues, children find ways to transform the obstructive affects into positive ones.

Silence also has the power to build relationships. Connected relationships can be developed in silent play. Storying never ends. In everyday storying, endings are often transitory. The endings, Qian and Brooke's high-five, Stella and Jay's pause to transition to mat-time, and Yu's walking away from the paper-spring play, are just temporary. New stories emerge from the tentative endings. Silence has influenced children's emotions at the moment of storying-play. More importantly, silence primes future relationships. Closer relationships have been germinating in silent-dialogue stories. The moments of playful finger-tapping accompanied by gazes and smiles, prompted Qian to initiate cheerful interactions with Brooke and to build friendships with other children in the subsequent weeks. The multisensory silent play of Stella and Jay created a space for them to become friends in two weeks. They naturally gathered to play together after mat-time. The silent play with the figure and paper-spring uncovered Yu's hidden gifts. Since then, Yu's peers often invited him to join their groups because they saw him differently—with creativity and perseverance. Silence has the power to affect, build and sustain friendships.

Listening to Silence Differently

Listening is a gift teachers could give themselves and their children. "Active listening necessitates generous interpretation and thoughtful response" (Yoon & Templeton, 2019, p. 61). By closely listening to children's silence, teachers can create and sustain an inclusive environment, which is composed of belonging and relationality in the intra-actions. In day-to-day early childhood practice, educators can "listen" to children's voices, shared through varied modes of communication and sensed through their intra-actions with people and things in their daily environments. This amplified sensitivity in listening can, in turn, yield asset-based interpretations of intra-actions and responses.

Silence can be heard in embodied connections experienced through multimodal processes. Verbal expression is not the only indicator to determine children's competence, participation, and affective experiences. These dispositions can be amplified through intra-actions with people and things. Children who do not engage in verbal conversations are still "part of the dialogues – watching, listening, or perhaps simply experiencing the flow of events" (White, 2015, p. 47). Their presence in dialogues needs to be

recognised. Joint attention and shared purposes in storying-play can convey a we-are-connected message, boosting children's sense of belonging.

Silence can be heard in responsive and reciprocal relationships. Reciprocal interactions, playful mimicking, and exchanging play ideas are ways to approach and engage with people and things in carefree and enjoyable ways, creating an inclusive space for relational connections. In a responsive relationship, children can explore novel or different engaging forms and jointly extend a sense of what is possible together, even in silence. The underlying principle is the "possibility of democracy" (Fielding, 2016, p. 1)– everybody has the agency to participate in and contribute to the play in multiple forms. New possibilities for mutual understanding require human's respectful heart coming to re-see each other upon everybody's (humans and nonhumans) strengths and contributions. Silence, as exemplified in the stories, is an affective gift that invites storying together, thereby strengthening relationships, current and future.

Epilogue: Appreciating the Sound of Silence

In a post-intentional phenonological sense, our relationships have been continuously evolving alongside the data collection and analysis processes and our knowledge about the contexts, leading to meaningful interpretations. There are multilateral ways to make sense of children's storying; we welcome readers' multiple illuminations based on their experiences and perspectives. Our purpose is to offer alternative ways of understanding children's storied worlds through the post-intentional phenomenological, strengths-based, and embodiment perspectives. As researchers, transforming our thinking of silence from an absence of verbal communication to the presence of embodied intra-actions is crucial. Children have a multitude of affects that offer intriguing directions to further explore through everyday storying, especially in inclusive environments. The relevance of this work for early childhood educational practices is indirect yet meaningful. We invite readers to consider silence in children's educational lives. This article showcased three play-stories as seen through a post-intentional phenomenological and posthuman theoretical point of view. More practically, the stories gave this article value in academic writing about and through early childhood education.

Silences represent the hidden voices of children. Their wordless stories disrupted the deficit mindset of seeing them inequitably as lacking competence, affect, and engagement. From their stories, children tell us, as educators and researchers, about their positive dispositions and feelings, capabilities to contribute to social play, eagerness to connect, and courage to fantasise. These stories recount our endeavours to heed the sound of silence that is sometimes inaudible, ignored, and misunderstood but always present (Mazzei, 2003) and affective. The affective connectedness is not exchanged necessarily in words but powerfully through bodies-in-interactions that are complementary to each other.

In this study, what matters is not only the telling but also the listening—"who hear the voices, what and how they hear it" (Spyros, 2016, p. 19). Children vividly modelled what storying could look like with silent dialogues as both listeners and tellers. Silence is not easily identified and requires open minds to hear and recognise. In a post-intentional sense, we contemplate various ways stories manifest in and through children being in their world and us being with children in their storying moments. This inspires educators to deeply listen to the sound of silence through hearing, seeing, and sensing (Martín-Bylund, 2018). Storying is dynamic and affective. The stories we shared are not fixed or concluded. Rather, these stories are connected to readers' cache of knowledge, thoughts, affects, and experiences.

Silence takes children's capacities seriously to express, intra-act and be fully involved in their social, affective, and material worlds. For children, silence is a subtle-yet-resonant form of literacies, like written, oral, or visual, that conveys meaning. Silence is a live multimodal text crafted spontaneously and naturally responding to everyday lives. Silence has generative power to unfold children's storied experiences and imagination, bring forth positive affects, and strengthen relationships. The silent stories reveal rich complexities and meaning, gifting us new insights about children. "When multiple children perform it at once, their silent voices are raised in unison, creating not cacophony, but symphony" (Acheson, 2008, p. 549). This is an opening to appreciate silence as a symphony of affects through children's everyday

storying.

Declarations

Author's Declarations

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Research Article

Predictors of family burden in families caring for children with special needs

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Abstract: Having a child with special needs has a significant impact on family life. While adapting to this new situation, parents often face difficulties related to the care of their children, family relations, and financial situation. The present study examined differences between family burden and spousal support perceived by mothers and fathers of children with special needs and investigated predictors of perceived family burden and spousal support. A total of 394 parents of children with disabilities (197 couples) from a large urban city in Northern Turkey participated in this survey study. Results showed the perceived family burden and spousal support differed significantly between couples. Mothers of children with special needs had significantly higher perceived family burden and significantly lower perceived spousal support in comparison to fathers. Moreover, perceived spousal support significantly predicted family burden perceived by mothers and fathers. Implications in relation to services offered to families of children with disabilities along with the recommendations for future research in this area are discussed.

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Introduction

Having a child with special needs has a significant impact on family life. While adapting to this new situation, parents often face difficulties related to the care of their children, family relations, and financial situation. This process, in which parents often need to quickly adapt to new responsibilities and roles of taking care of their children with special needs, can be very challenging for parents and can negatively affect their marital relationships (Bhatia, 2018). Some parents isolate themselves and their children from the society to cope with this new way of life (De Caroli & Sagone, 2013). The fact that many children with special needs need lifelong care imposes burdens on parents (Sahu et al., 2019). Family burden is described as "the difficulties and challenges experienced by families as a consequence of someone's illness" (or disability in this case; Sales, 2003, p. 34). The concept of burden includes objective burdens (e.g., loss of income, restriction of social activities, disruption of family routines), and subjective burdens (e.g., emotional distress about the child). Family burden is usually evaluated based on four categories including psychological, physical, social, and economic burden (Chou, 2000). Family burden is impacted by the necessity of changing expectations and plans for future (Yildirim-Dogru & Arslan, 2008) and increased physical burden due to the need for care (Kaner, 2004). Moreover, it is impacted by withdrawal from social environments due to the presence of problem behaviors in children (Bildirici, 2014), and the economic difficulties related to the education, daily care and treatment of children (Ozsenol et al., 2003).

Family Burden

Compared to parents of children with neurotypical development, parents of children with autism spectrum disorder (ASD)(Smith et al., 2010) and intellectual disability (Manor-Binyamini, 2011) experience

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increased levels of family burden. Research has reported that among the most obvious reasons for increased family burden are the increase in the need for care of the child, the decrease in leisure time activities (Smith et al., 2010), and increased health expenditures or economic difficulties due to reasons such as leaving the job (Cidav et al., 2012). The burden placed on the family after diagnosis appears to be related to age and gender of the child (Aysan & Ozben, 2007), the type or severity of disability the child has (Langley et al., 2017; Plant & Sanders, 2007), behavior problems demonstrated by the child (Unwin & Deb, 2011), the presence of comorbidities (Irazábal et al., 2012), and social support (Picardi et al., 2018). Among the disability types, ASD draws attention as an area of disability that affects parents more than other disability types (Hayes & Watson, 2013). Compared to other types of disabilities, parents spend more time helping their children with ASD in their daily living activities and managing the emotional-behavioral problems accompanying ASD (Smith et al., 2010). Further, when children with disabilities display intense behavior difficulties, their families may isolate themselves from the social environments, thus limiting their access to services and increasing the burden of parents as caregivers (Unwin & Deb, 2011). Therefore, the type of disability alone is not a factor that determines the family burden; the severity of disability and the presence of emotional-behavioral problems are more important factors affecting the family burden.

Research has shown that mothers are more affected by the burden of having a child with special needs in the family for several reasons (Irazábal et al., 2012). First, a large portion of working mothers often have to quit their jobs to meet the needs of their children with special needs (Di Giulio et al., 2014). Second, they take more responsibilities for the care of their children (Ström et al., 2012). It seems inevitable that the burden of mothers will increase as fathers take less responsibilities than mothers in supporting development and learning of the family member with disability (Harper et al., 2013). Research has shown that mothers who shoulder the burden of childcare alone limit their social relationships and interactions with others (Atila-Demir & Keskin, 2018), are exposed to more stress (Ilhan et al., 2019), and experience increased burnout due to psychological strain (Langley et al., 2017). Accordingly, mothers question their marriage more frequently (Hartley et al., 2017) and express more concerns about martial relationships (Harper et al., 2013). As a result of the increased family burden, parents of children with special needs spend less time with their spouses (Woodgate et al., 2008), and have fewer resources to provide spousal support and create time for spousal intimacy (Hartley et al., 2017). To reduce the mothers' responsibilities, burden, and stress, fathers can share responsibilities in relation to the care of children with special needs in the family; thus, providing spousal support.

Spousal Support

Spousal support can be defined as the provision of emotional, financial, informational, appreciation, and self-esteem support (Huber et al., 2010). Thus, the concept of spousal support is not limited to care support that includes help with housework and childcare. Spousal support also includes emotional support that spouses provide (e.g., spouses provide information to and value each other, and appreciate and understand each other). The existence of all these dimensions of spousal support makes it easier for couples to cope with the negative events they encounter in daily life (Aydogan & Kizildag, 2017). Due to the fact that families that have children with special needs often isolate themselves from the social environment to address their children's unique needs (De Caroli & Sagone, 2013), the social support resources of the couples decrease and they have to cope with the challenges alone (Woodgate et al., 2008). Thus, it is of particular importance that the spouses provide support to each other when raising a child with special needs. Spousal support plays a critical role in reducing the negative emotions that may arise because parents of children with special needs cannot spare enough time for each other (Woodgate et al., 2008). Couples who support each other are likely to perceive changes in their families as less stressful and can be more successful in coping with the challenges.

Men and women differ in both their needs for support and their ability to provide support to their spouses (Reevy & Maslach, 2001). Women expect more support from their husbands than men expect from their spouses (Xu & Burleson, 2001). Thus, it is possible that women do not see the support they receive from their husbands as sufficient. In addition to perceived spousal support, the types of support provided

may also differ between spouses. Traditionally, men provide financial and instrumental support, while women provide more emotional support (Lawrence et al., 2008). As a result, the emotional support women show to their spouses can make it easier for men to cope with stressful life events. However, men's focus on providing instrumental support rather than emotional support may not adequately respond to women's emotional needs. Karakus and Kirlioglu (2019) stated that women do not consider the support they receive from their spouses sufficient during stressful days and times. The perceptions of parents of children with special needs regarding the support they receive from their spouses may also change depending on the family burden brought on by the amount of extra services and needs that the child with a disability might need. Therefore, it is expected that the perceived spousal support will differ according to the type and severity of the child's disability.

Spousal support has a positive effect on parenting behaviors because it reduces parental stress (Kanter & Proulx, 2019). Couples with children with special needs need more support from each other in order to meet the needs of their children (Busillo-Aguayo, 2010). Spousal support and communication between couples are seen as a key factor affecting conflict between spouses (Busillo-Aguayo, 2010). Poor marital adjustment leads to child-rearing conflicts and overreactive parenting, which increases problem behaviors demonstrated by the child (O'Leary & Vidair, 2005). Moreover, low marriage quality increases behavior problems in children (Papp et al., 2004; Wieland & Baker, 2010). For example, Kanter and Proulx (2019) found that children's aggression levels were negatively affected by the level of spousal support provided from their fathers to mothers. On the contrary, spousal support and high marital quality can positively affect the quality of parent-child relationships (Wieland & Baker, 2010). Recent literature in child development reaffirms the strong link between the quality of the parent-child relationship and child outcomes. Support and opportunities provided by the family act as a protective factor by improving children's ability to cope and adapt to life's challenges (Frost et al., 2020; Spiteri, 2021). From this point of view, it can be asserted that marital relationships where family burden is shared among spouses by providing spousal support to each other are more likely to result in positive parent-child relationships and therefore, enhance child development.

Studies on the marital relations of parents of children with special needs have shown parents of children with ASD have lower satisfaction in their marriage and a higher risk of divorce (Sim et al., 2016). Research has shown that mothers of children with ASD experience more stress than mothers of children with other disabilities (Hayes & Watson, 2013). Although the literature emphasizes the importance of spousal support for couples with children with special needs, there is limited research investigating how spousal support varies based on severity and types of disability the child has. In addition, most studies including parents of children with special needs are based on the opinion of one of the spouses (usually wife's). In the present study, the participation of both spouses was ensured, so that the differences between the couples could be examined.

Support Services for Children with Special Needs and Their Families

Family and Divorce Counseling Services are provided by psychologists in Provincial Directorates of Family and Social Policies and Social Service Centers in Turkey. Psychological support services offered in these centers are not specific to families of children with special needs, but all families. There are Care, Rehabilitation and Family Counseling Centers in every province affiliated to the General Directorate of Services for the Disabled and Elderly in the Turkish Ministry of Family and Social Services (TMoFaSS). Psychologists in the Family Support Units across these centers provide information and counseling services to the families of individuals with special needs. This includes psychological support for the family, information on the care and rehabilitation services offered to individuals with special needs, ensuring family participation, and informing about the continuation of rehabilitation services at home.

Activities to support individuals with special needs and their families in Turkey are also included in the 2022-2026 Strategic Plan of the TMoFaSS (TMoFaSS, 2022a). This plan aims to expand family-oriented care services and to increase the effectiveness of education-counseling services for families. In addition to the strategic plan, the TMoFaSS has developed a 2030 Barrier-Free Vision Document (TMoFaSS, 2022b).

The National Action Plan for the Rights of Persons with Disabilities (2023-2025) has been prepared within the scope of the Barrier-Free Vision Document (TMoFaSS, 2022c). In this plan, there are various objectives related to increasing the well-being of individuals with special needs and their families. Information, consultancy, guidance, and support services for individuals with special needs and their families will be strengthened. Studies will be carried out to increase the care competence of the family members who undertake the care responsibility of the individuals with special needs in the family. In line with these purposes, it is planned to expand the home-based social service model, to increase the effectiveness of family support units regarding disability, and to increase the effectiveness of free family counseling service.

Purpose of the Study

The purpose of the present study was to examine the differences between family burden and spousal support perceived by mothers and fathers of children with special needs and investigate the predictors of perceived family burden and spousal support. Two main questions were addressed in this study: (1) Do couples who have children with special needs differ significantly in perceived family burden and perceived spousal support? (2) Does the gender of the child, and the type and severity of disability the child has significantly predict perceived family burden and perceived spousal support of couples who have children with special needs?

Theoretical Framework

Research on child development has shown that presence of high-level parental stress (Woodman et al., 2015) and marital problems among couples including lack of spousal support (Hosokawa & Katsura, 2017), adversely impact children's development. While having children with special needs in the family impacts the level of stress and burden experienced by parents, increased burden and stress experienced by parents and problems in their marital relationship affect parents' relationship with their children and in turn, children's development (Hsiao, 2018; Peer & Hillman, 2014). Bronfenbrenner's ecological systems theory offers a useful theoretical framework for this reciprocal relationship (Bronfenbrenner, 1979; 1986; 1995). According to this theory, children develop within the context of interconnected layers of systems and interactions among structures within and between these systems impact the childhood development and family well-being. The child with his/her innate characteristics (e.g., genetics, intelligence, pre-existing conditions, or disabilities) is at the center of the Bronfenbrenner's model and encompassed by five intertwined systems from most immediate to most distal. The first system in which the child lives in is the *Microsystem* and includes the structures (e.g., the family, school, childcare, friends, teachers) the child directly interacts on a regular basis (Swick & Williams, 2006). Bi-directional relationships are strongest in this level, and they have the greatest influence on the child and vice versa. For example, when a child with special need joins the family, parents may need to interact with special education schools and services or when parents have high levels of stress, the child behavior may be influenced adversely. The second system, *Mesosystem*, encompasses connections between two or more systems. For example, a service provider in the microsystem can connect the child and family with a parent organization in the same system for support, or the service provider can connect parents to a heath care provider (in the next system) to receive therapeutic support. The third system, *Exosystem*, includes informal and formal social structures (e.g., employers, health services) that indirectly influence the child through their impact on the microsystem (Chachar et al., 2021). For example, due to increased care responsibilities, many mothers of children with disabilities quit their jobs which may result in financial difficulties and impact services the child receives. Psychological supports provided by the governmental agencies may also help parents to cope with stress and burden, and as a result will help improve the relationships between parents and children. The fourth system, *Macrosystem*, includes cultural factors (e.g., values, political views, ethnicity, socioeconomic status) that influence development of children. Finally, *Chronosystem*, adds the dimension of time into the theory as it relates to the child and their environments. This system considers changes within the child and their environments over time to examine how these changes impact a child's development (Eriksson et al., 2018).

Method

Research Design

The survey design, a correlation research method, was used in this study to investigate the relationships between perceived family burden and perceived spousal support of couples who have children with special needs. Correlational research allowed investigators to examine the existing relationships among two or more variables without the researcher controlling or manipulating any of the investigated variables (Karasar, 2015).

Participants

Participants of the present study were the parents of 197 children with special needs (197 couples, a total of 394 parents) who lived in a large urban city in Northern Turkey. They were identified using as a simple random sampling method among the parents of children with ASD or intellectual disability (ID) who were enrolled in special education schools or rehabilitation centers during 2019-2020 school year. Questionnaire packages were sent to the families of 450 children with ASD or ID. Parents of 231 children consented to participate in this study and completed the questionnaires. A total of 31 questionnaires were completed by either mothers or fathers alone (not by both in the couple) and so they were excluded from the study. Three additional cases were also removed from the data set due to extreme values. Therefore, the final study sample included 197 questionnaires filled out by both the mother and father in each family, individually. As results, data analysis was conducted using data obtained from a total of 394 parents, 197 mothers and 197 fathers. Demographic characteristics of participants are provided in Table 1.

Table 1. Demographic characteristics of parents and children

Parent attributes	Mother (n = 197)	Father (n = 197)	Total (n = 394)
Age (M, SD)	37.26 (6.16)	40.78 (5.60)	39.0 (6.13)
Education (%)			
Primary school	39.1	34.0	36.5
Middle school	20.3	16.2	18.3
High school	22.3	26.9	24.6
College	18.3	22.9	20.6
Employment (%)			
Public employee	7.6	24.9	16.2
Private/Freelance	7.6	61.4	34.5
Not working	84.8	13.7	49.3
Change in employment status (part- time, lay-off) (%)	18.8	10.2	14.5
Child attributes	**Intellectual Disability (n = 111)**	**Autism (n = 86)**	**Total (n = 197)**
Gender (%)			
Male	40.5	16.3	29.9
Female	59.5	83.7	70.1
Severity of disability (%)			
Mild	38.7	33.7	36.5
Moderate	37.8	37.2	37.6
Severe	23.6	29.1	25.9
Number of siblings (%)			
0	7.3	24.4	14.7
1	48.6	43.0	46.2
2	36.0	25.5	31.5
3 +	8.1	7.1	7.6
Age			
Diagnostic	1.95 (2.15)	2.92 (1.31)	2.37 (1.89)
When received initial services	3.35 (2.35)	3.38 (1.55)	3.37 (2,04)

Instruments

Data were collected through a survey package that included a demographic information form, the Family Burden Rating Scale (Yildirim-Sari & Basbakkal, 2008), and the Spousal Support Scale (Yildirim, 2004).

Demographic Information Form

Prepared by the researchers, this form was used to collect data about demographic backgrounds of participants. The form included questions regarding demographic characteristics, such as age, occupation, educational status, and duration of marriage. In addition, the participants were asked to report the number of children and their demographic attributes, including gender, chronological age, age of diagnosis, type, and degree of disability noted on the diagnostic evaluation report.

Family Burden Scale

Yildirim-Sari and Basbakkal (2008) developed the Family Burden Scale to evaluate the burden perceived by the families with children with special needs. The scale includes 43 items under 6 sub-dimensions. Items on the scale were scored using a five-point Likert-type scale, ranging from never (1) to always (5). Scores on the scale range between 43 and 215. Higher scores on the scale indicated increased family burden. Reported Cronbach's alpha and test-retest correlation coefficient were .92 and .98, respectively (Yildirim-Sari & Basbakkal, 2008). In the present study, the Cronbach alpha coefficient was found to be .95. Sample items from the scale include "I spend most of my time taking care of my child" (item 37; time requirement subscale) and "I miss being alone with my wife/husband" (item 35; emotional burden).

Spousal Support Scale

Yildirim (2004) developed the Spousal Support Scale to measure the perceptions of spouses about the support they receive from each other. The scale includes 27 items under 4 sub-dimensions. Items on the scale were scored using a five-point Likert-type scale, ranging from not suitable for me (1) to suitable for me (5). Scores on the scale range between 27 and 81. Higher scores on the scale indicated increased spousal support. Reported Cronbach's alpha and test-retest correlation coefficient were .95 and .89, respectively (Yildirim, 2004). In the present study, the Cronbach alpha coefficient was found to be .95. Sample items from the scale include "My spouse tries to make time to be with me" (item 3) and "My spouse helps me cope with problems" (item 25).

Data Collection Procedures

After obtaining ethical approval and permission from the local education agency, researchers contacted the administrators of all special education schools and rehabilitation centers in the city to obtain list of all students who had either ASD or intellectual disability (n = 1590). Next, 450 randomly selected students with a diagnosis of ASD or an intellectual disability were sent the survey packages in closed envelopes. Along with the survey package, information about the purpose and content of the study, and informed consent forms were sent to the families. Parents who volunteered to participate in the present study were asked to complete the consent form and survey package anonymously and return it back to the school administrators in a closed envelope. Survey packages included forms for the mother and father separately. Mothers and fathers were asked to fill out the surveys independently and not to share their answers with each other. Each couple was given three weeks to return the survey package. Forms completed by only one of the parents were not included in the data analysis. Once the data collection packages were returned to the researchers, consent forms and survey were separated from each other to protect confidentiality and anonymity of the participants.

Data Analysis

A paired samples t-test was used to determine whether perceived family burden and perceived spousal support differed significantly between couples (research question 1). This was done by comparing

the aggregate scores of the fathers on the Family Burden and then Spousal Support Scales to the scores of the mothers. Next, the scores of the families who had children with ASD were compared to the scores of the families with children with intellectual disabilities. Finally, the aggregate scores of the parents with male or female children were compared. To address the second research question, a multiple regression analysis was performed to determine the variables that predict perceived family burden of couples who have children with special needs. Prior to the multiple regression analysis, the Pearson product-moment correlation coefficient was computed to determine the relationship between perceived family burden and perceived spousal support. The SPSS 22 was used to conduct the data analysis. The significance of the obtained statistics was tested at the .05 level.

Prior to the data analysis extreme values in the data set were identified by calculating the Mahalanobis distance. Six data points with extreme values (3 couples) were noted and removed from the data set. The remaining analyses were conducted using the data from 197 couples (394 parents). Following the removal of cases with extreme values, univariate normality assumptions were examined by calculating kurtosis and skewness coefficients using the One Sample Kolmogorov-Smirnov (K-S) test. Results of K-S revealed a *p* value .20 ($p > .05$) for the Family Burden Scale and Spousal Support Scale scores. In addition, kurtosis and skewness values were found to be -.801 and -.097 for mothers' perceived family burden scores; .089 and -.941 for mothers' perceived spousal support; -.606 and .102 for fathers' perceived family burden; and 1.125 and -1.240 for fathers' perceived spousal support. These results indicated that the data met the univariate normality assumptions. Next, normality, linearity and homogeneity assumptions to perform multivariate analyzes were tested (Cokluk et al., 2018). Scatter plots of all binary variable combinations were examined. The examination of scatter plots showed an ellipse or close to ellipse pattern, indicating that the normality assumption was met. When the residual graphs were examined, it was determined that the values were gathered around a linear axis. As a result of the Box's M test, the variances were homogeneous (*Box's M* = 163.16, $p = .39$). These results indicated that the data met the assumptions for multivariate analysis.

Results

Perceived Family Burden and Spousal Support by Couples and Child-Related Variables

A paired samples *t*-test was performed to determine whether perceived family burden and perceived spousal support differed significantly between couples. As seen in Table 2, perceived family burden, $t(196) = 3.82$, $p < .001$, and perceived spousal support, $t(196) = -3.62$, $p < .001$, differed significantly between couples. The mean perceived family burden score for mothers ($M = 115.09$) was significantly higher than that of fathers ($M = 109.48$) while the mean perceived spousal support score for fathers ($M = 68.40$) was significantly higher for than mothers ($M = 65.98$).

While both perceived family burden ($p < .01$) and perceived spousal support ($p <. 01$) mean scores differed significantly between couples who have children with intellectual disabilities, parents of children with ASD differed significantly in perceived spousal support scores ($p < .01$). The mean perceived family burden score of mothers of children with intellectual disabilities ($M = 112.36$) was significantly higher than that of fathers ($M = 105.88$) while the mean perceived spousal support scores for these mothers ($M = 67.74$) was significantly lower than their spouses ($M = 69.33$). While the mean perceived family burden scores of the parents of children with ASD did not differ significantly between the couples ($p > .05$), the mean perceived spousal support of these mothers ($M = 63.70$) was significantly lower than that of the fathers (M = 67.19).

Table 2. Comparison of perceived family burden and spousal support across couples and demographic variables

			Mother		Father				
		N	*M*	*SD*	*M*	*SD*	*Df*	*t*	*p*
Perceived Family Burden									
Type of disability	Intellectual disability	111	112.36	32.73	105.88	31.09	110	3.53	.001
	Autism	86	118.60	33.09	114.13	33.43	85	1.86	.06
Severity of disability	Mild	72	100.56	31.39	91.22	27.77	71	3.63	.001
	Moderate	74	120.60	33.83	116.11	31.54	73	2.20	.03
	Severe	51	127.58	26.05	125.64	27.10	50	.61	.54
Gender of child	Female	59	107.07	34.16	105.97	32.25	58	.45	.65
	Male	138	118.51	31.93	110.98	32.34	137	4.17	.000
Total		197	115.09	32.95	109.48	32.31	196	3.82	.000
Perceived Spousal Support									
Type of disability	Intellectual disability	111	67.74	10.75	69.33	10.84	110	-1.74	.001
	Autism	86	63.70	12.88	67.19	11.79	85	-3.57	.001
Severity of disability	Mild	72	65.73	11.57	67.76	12.65	71	-1.72	.08
	Moderate	74	66.64	11.94	69.97	9.49	73	-3.17	.002
	Severe	51	65.37	12.35	67.00	11.59	50	-1.29	.20
Gender of child	Female	59	66.08	12.31	67.97	11.26	58	-1.48	.14
	Male	138	65.93	11.72	68.58	11.33	137	-1.09	.001
Total		197	65.98	11.87	68.40	11.29	196	-3.62	.000

Perceived family burden of parents of children with mild ($p < .01$) and moderate disabilities ($p < .05$), and perceived spousal support of parents of children with moderate disabilities ($p <. 05$) differed significantly between couples. The mean perceived family burden scores of mothers of children with mild and moderate disabilities ($M_{mild} = 100.56$, $M_{moderate} = 120.60$) were significantly higher than those of fathers ($M_{mild} = 91.22$, $M_{moderate} = 116.11$). The mean perceived spousal support of mothers of children with moderate disabilities ($M_{moderate} = 66.64$) was significantly lower than that of father ($M_{moderate} = 69.97$). Perceived family burden of parents of children with severe disabilities and perceived spousal support of parents of children with mild and severe disabilities did not differ between the couples (all values of $p > .05$).

Perceived family burden ($p < .001$) and perceived spousal support ($p < .01$) of couples with a son with special needs differed significantly between couples while neither perceived family burden nor perceived spousal support differed significantly between couples who have daughters with disabilities (both values of $p > .05$). The mean family burden score of mothers of boys with disabilities ($M = 118.51$) was significantly higher than that of fathers ($M = 110.98$) while the mean perceived spousal support for mothers ($M = 65.93$) was significantly lower than fathers ($M = 68.58$).

Predictors of Perceived Family Burden

A multiple regression analysis was performed to determine the variables that predict the family burden of the parents of children with special needs. A prerequisite for conducting multiple regression analysis is statistically significant correlations among the variables (Buyukozturk, 2018). Therefore, a Pearson product-moment correlation analysis was conducted, and results showed that there was a statistically significant negative correlation between family burden and spousal support perceived by mothers ($r = -. 24$, $p <.01$) and fathers ($r = -.19$, $p < .01$). Predictors of perceived family burden in mothers and fathers were analyzed separately by multiple regression analysis (see Table 3 & Table 4).

As shown in Table 3, perceived family burden in mothers had a positive and moderate relationship with the severity of child's disability ($r = .33$), a negative and weak relationship with perceived spousal support ($r = -.24$), and a weak and positive correlation with the gender of the child ($r = .15$). When the other variables were controlled, the correlation between perceived family burden in mothers and the severity of child's disability was $r = .36$, perceived family burden and perceived spousal support was $r = -.26$, perceived family burden and gender of the child was $r = .15$. Results showed that the perceived family burden in mothers increased as the perceived spousal support decreased, or the severity of child's disability increased. Moreover, perceived family burden was higher in mothers of boys with special needs. Finally,

paired and partial correlations between the type of child's disability and perceived family burden by mothers were negligible.

Table 3. Predictors of family burden in mothers of children with special needs

Predictive Variable	Reg. Coeff.	St. Error	β	t	p	Paired r	Partial r
Constant	101.93	17.16	-	5.94	.000	-	-
Severity of disability	23.62	4.41	.34	5.35	.000	.33	.36
Perceived spousal support	-.69	.18	-.25	-3.80	.000	-.24	-.26
Gender of the child	12.45	4.80	.17	2.60	.010	.15	.18
Type of disability	-.76	4.50	-.01	-.17	.865	.09	-.01

R = .45, R^2 = .20, $F_{(4, 192)}$ = 12.21, p = .000

The t-test results regarding the significance of the regression coefficients indicated that the severity of child's disability (t = 5.35, p < .001), the perceived spousal support (t = -3.80, p < .001) and the gender of the child (t = 2.60, p < .05) variables significantly predicted the perceived family burden in mothers. The type of child's disability did not significantly predict the perceived family burden (t = -.17, p > .05). Based on the β values of the predictive variables, the severity of child's disability was the best predictor of family burden, while perceived spousal support was the second, and child's gender was the third. These three variables predict 20% of the perceived family burden in mothers ($R2$ = .20, F(4, 192) = 12.21, p = .000).

As shown in Table 4, perceived family burden in fathers had a positive and moderate relationship with the severity of child's disability (r = .45) and a negative and weak relationship with perceived spousal support (r = -.19). When the other variables were controlled, the correlation between perceived family burden in fathers and the severity of child's disability was r = .45 and perceived family burden and perceived spousal support was r = -.23. Results showed that the perceived family burden in fathers increased as the perceived spousal support decreased, or the severity of child's disability increased. Paired and partial correlations between child's gender or disability and perceived family burden in fathers were negligible.

Table 4. Predictors of family burden in fathers of children with special needs

Predictive Variable	Reg. Coeff.	St. Error	β	t	p	Paired r	Partial r
Constant	87.02	16.59	-	5.24	.000	-	-
Severity of disability	29.32	4.22	.43	6.94	.000	.43	.45
Perceived spousal support	-.59	.18	-.20	-3.27	.001	-.19	-.23
Gender of the child	5.27	4.60	.07	1.14	.252	.07	.08
Type of disability	4.23	4.26	.06	.99	.322	.12	.07

R = .49, R^2 = .24, $F_{(4, 192)}$ = 15.31, p = .000

The t-test results regarding the significance of the regression coefficients indicated that the severity of child's disability (t = 6.94, p < .001) and the perceived spousal support (t = -3.27, p < .01) variables significantly predicted the perceived family burden in fathers. Child's gender (t = 1.14, p > .05) and disability (t = .99, p > .05) did not significantly predict the perceived family burden. Based on the β values of the predictive variables, the severity of child's disability was the best predictor of family burden, while perceived spousal support was the second. These two variables predict 24% of the perceived family burden in fathers (R^2 = .24, F(4, 192) = 15.31, p = .000).

Discussion

The present study was designed to examine the differences between family burden and spousal support perceived by mothers and fathers of children with special needs and investigate the predictors of perceived family burden and spousal support. Findings showed that perceived family burden and spousal support differed significantly between couples. More specifically, we found that the mothers of children with special needs have significantly higher perceived family burden and significantly lower perceived

spousal support in comparison to the fathers of children with special needs. This finding is consistent with the findings of previous studies reporting higher family burden perceived by mothers of children with special needs (Karayagiz-Muslu & Coskun-Cenk, 2018; Picardi et al., 2018; Ström et al., 2012). The main reason for why mothers of children with special needs have higher family burden may be explained by the fact that mothers are considered as primary caregivers and undertake more parenting responsibilities when compared to fathers (Bornstein & Putnick, 2016; Papadopoulos, 2021). In many societies, mothers leave their jobs and take care of their children when a child with special needs joins to the family (Turan-Gurhopur & Isler-Dalgic, 2017). Frequently, this results in social isolation of mothers (Karayagiz-Muslu & Coskun-Cenk, 2018), and could potentially bring economic, physical, social, and emotional burdens. Despite the changes in the contemporary family structures, the difference between male and female roles especially in families with low socioeconomic status still persists (Luz & Berni, 2010). In families where the traditional family structure is dominant, such as in Turkish society, the male does not directly take the responsibility of caring for children; they often provide support to the family indirectly by doing out-of-home duties (Marks et al., 2009; Rana et al., 2021). In the current study, most fathers (86%) were working outside of home and most mothers were not working outside the home; thus, they had more care responsibilities. This may have resulted in increased family burden perceived by mothers. Different levels of family burden reported by the mothers and fathers in the same family can be explained by the Family Systems Theory (Turnbull et al., 2011) which emphasizes that a family member's experience of having special needs has the potential to affect everyone else in the family system and its subsystems (Seligman & Darling, 2007). The way each family responds to having a family member with special needs is different, as each family's dynamics and inputs (family characteristics, family interactions, and family life cycle) are different. Moreover, each individual within the family (e.g., father or mothers) may also respond to this situation differently.

Research has shown that perceived spousal support plays a more critical role than the actual amount of support provided. Further, spousal support is extremely important for parents' well-being since many mothers of children with special needs limit their social relationships (Atila-Demir & Keskin, 2018; Ilhan et al., 2019; Karayagiz-Muslu & Coskun-Cenk, 2018) and cope with challenges they are facing alone (Woodgate et al., 2008). In the present study, we found that the perceived spousal support of mothers was lower than the spousal support perceived by fathers. The same pattern in perceived spousal support was observed when the types of child's disability was considered. It should be noted that the low spousal support perceived by mothers may not be a direct result of the amount of spousal support provided by fathers. The difference in perceived spousal support between mothers and fathers of children with special needs may be due to the different support needs of the spouses. Moreover, the types of support mothers expect from their spouses may be different than the types of support they receive from their spouses. Reevy and Maslach (2001) reported that men and women generally differ both in their support needs and in their ability to respond to their partner's support needs. For example, women are more likely to offer support spontaneously and when requested (Samter, 2002). Studies also showed that women provide more support to their spouses during stressful times but receive less support from their spouses in similar situations (Karakus & Kirlioglu, 2019). The high level of support women provide to their spouses may result in an expectation of a similar level of support from spouses. This difference between the level of expected and received spousal support may affect the marital relations negatively (Lawrence et al., 2008).

Findings of the present study also showed that the severity of the child's disability predicted the family burden of both mothers and fathers; as the severity of the child's disability increased, the burden perceived by mothers and fathers also increased. This finding may be related to the research showing that as children's disability severity increases, the time and expenses spent on childcare increase (Nam & Park, 2017), the level of exposure to social isolation increases (Karayagiz-Muslu & Coskun-Cenk, 2018); thus, the family burden increases (Langley et al., 2017). Moreover, the family burden perceived by mothers and fathers differs based on the level of the severity of child's disability. While the family burden of mothers of children with mild and moderate disabilities was significantly higher than that of fathers, the family burden of mothers and fathers of children with severe disability was found to be similar. In line with traditional

gender roles, the mothers in this study bear most of the burden in the families of children with mild and moderate disabilities, and therefore family burden perceived by those mothers was higher than the fathers. Whereas when children had more severe disabilities, childcare responsibilities were potentially shared more equally among the spouses which in turn resulted in a similar burden as perceived by the mothers and fathers.

Picardi et al. (2018) found that the family burden perceived by the mothers of children with ASD was higher than those perceived by the mothers of children with Down Syndrome and asserted that the difference was due to the severity of ASD and children with ASD having comorbid intellectual disability. Similarly, in the current study, we found that the family burden perceived by mothers and fathers of children with ASD was higher than the burden perceived by the parents of children with intellectual disabilities. When the perceived family burden of the parents was compared, we found that family burden perceived by mothers and fathers of children with intellectual disabilities was significantly different, while the family burden perceived by the parents of the children with ASD did not differ. This suggests that the burden is shared more between spouses in families of children with ASD. Due to the difficulties associated with the nature of ASD, it is thought that spouses shared the burden and therefore perceived family burden at a similar level. In addition, mothers bear most of the burden in the families of children with mild and moderate disabilities, in line with traditional gender roles, and therefore the burden perceived by mothers is higher. As the severity of disability increases, the increase in the family burden may ensure that the burden of care for children with severe disabilities is shared more among the spouses. For this reason, it is thought that the family burden does not differ between spouses within the families of children with severe disabilities.

In the present study, we also found that family burden and spousal support perceived by mothers and fathers differed based on the child's gender. The family burden perceived by the mothers of boys with disabilities was significantly higher than that of fathers and the spousal support perceived by mothers was found to be significantly lower. This finding may be explained by father involvement in the care of children. The low levels of father involvement in child care is explained by traditional gender roles in the literature. The decrease in father involvement in the care of boys may be related to the values attributed to the "male" children. Having a "male" child is considered to be important for the continuation of the lineage in Turkish society, and it may be more difficult for fathers to accept that a male child has special needs (Mese, 2013). Thus, having a male child with special needs may cause a greater social and emotional burden on the family.

Finally, the findings of this study showed that perceived spousal support significantly predicted family burden perceived by mothers and fathers of children with special needs. As the perceived spousal support increased, the family burden of the mothers and fathers decreased. Research has shown that spouses who have children with special needs are often not able to allocate enough time to each other; thus, they do not receive necessary support and intimacy from one another (Woodgate et al., 2008. Further, their marital relations deteriorate while rearranging their daily lives to support the child with disability (Sim et al., 2016). Spousal support is an important protective factor for relational resilience and marital harmony when parents face these challenges. Couples need more support from their spouses when they face difficult life or health issues and can cope with negative situations easier when they receive spousal support (Aydogan & Kizildag, 2017). They can therefore perceive stressors as more manageable and controllable, and cope with the family burden more easily when appropriated levels of spousal support are present. It is expected that the quality of marriage will be high in couples where the family burden is shared by providing spousal support. Marriage quality can also positively affect the quality of parent-child relationships (Wieland & Baker, 2010). Recent literature on child development indicates that there is a strong link between the quality of the parent-child relationship and child outcomes (Hintsanen et al., 2019). Children develop better skills to cope with and adapt to the difficulties of life when a strong and caring relationship exists between parents and children (Frost et al., 2020).

Limitations and Recommendations

There are at least three limitations of this study the reader should consider when interpreting the findings from this study. First, the study focused on a cross-sectional analysis of family burden and spousal support perceived by parents of children with special needs using a survey design. Studies investigating these variables longitudinally and using different research approaches (e.g., mixed method approach) may reveal a deeper understating of factors that impact perceived family burden and spousal support. Second, this study only included parents of children with ASD and intellectual disabilities. Therefore, results may not be generalizable to other populations. Future research should examine perceived family burden and spousal support among parents of children who have other disabilities. Third, this study focused on the negative impact of having a child with special needs on the family. Recent studies have emphasized that children with special needs make positive contributions to the family over time (e.g., Gokgoz & Kabukcuoglu, 2022). Families of children with special needs also develop various skills because of different experiences and improve their functioning. Thus, future research should examine families of children with special needs in the context of positive and protective psychological characteristics such as forgiveness, post-traumatic growth, tolerance, self-compassion, and resilience.

Implications for Practice and Policy

Findings from the present study have a number of implications for services and practices offered to parents of children with disabilities. First, parents of children with special needs should be provided with therapies focused on developing coping strategies and resources when their children are identified with disabilities. Moreover, the therapy and intervention efforts should focus on improving protective psychological characteristics identified in this study. These services should be readily available for parents to participate in following the diagnosis of their children with a disability. Second, parents of children with special needs should be offered psychoeducational therapies and participate in the intervention sessions together for maximum benefit. These therapies can be used to support couples to learn different types of spousal support, to develop an understanding of spousal expectations, to provide spousal support to the other spouse, and to recognize the support offered by the spouse. Although these supports may add additional burden to families of children with disabilities initially, parents who benefit from these services will be able to cope with the stress and burden associated with having a family member with disability and in turn, will be able to support development of their children more effectively. In fact, most parents focus on their children when they have identified disabilities and put themselves second, which often contribute to the increased parental stress and family burden. Moreover, parents of young children with disabilities may have difficulty in navigating systems to identify services they need (Brown et al., 2020). When parents experience high levels of stress and family burden, they may be less responsive to the needs of their children with special needs. The suggested support services will help parents to develop a supportive microsystem where strong, caring, and nurturing parent-child relationships exist. Parents who develop coping strategies to address stress and family burden will become more empowered within their exosystems and will be able to employ their mesosystems to respond to the difficulties they encounter while taking care of their family members with special needs.

The priority in the therapy services should be given to the parents of children with severe disabilities as the higher family burden and lower spousal support is more often associated with this group. These support services can be integrated into the currently existing Family Counseling Program offered by the Turkish Ministry of Family and Social Services. The current Family Counseling Program focuses on providing counseling services to families who have come to the point of divorce due to communication problems between spouses and within families. As the Ministry develops psychoeducational therapies for the parents and families of children with disabilities, they can be incorporated into the system and be offered by the professional working in the Community Mental Health Centers across the nation. In addition, parents of children with disabilities can receive temporary psychological support during urgent situation from the Social Support Line offered by the Ministry if the staff is trained to provide such support. Moreover, family counseling services or units can be established within the hospitals that provide medical diagnosis of disabilities for young children. These efforts require policy changes in macrosystem and

collaboration among the Ministry of Family and Social Services and Ministry of Health.

Declarations

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Research Article

Bilingualism matters: Early childhood teachers' attitudes toward children's creativity

Sabha Hakim Allehyani[1]

Abstract: Children can learn any language and acquire its skills at a very early age. Creativity is central to the curriculum. Early Childhood (EC) teachers should provide children with appropriate resources to individually spark their imaginations and encourage them to adopt different ideas. The objective of the current study was to determine the attitudes of EC teachers who are teaching bilingual students and integrating creativity into classroom activities. The study adopted the exploratory approach, where a total of 299 EC teachers in the western region of Saudi Arabia participated in this study by filling out a questionnaire. EC teachers believed that there are differences between bilingual boys and girls in creative competencies. Most teachers stated that they did not receive sufficient training and preparation to incorporate creativity into all subjects in EC schools. Teachers in private EC schools showed more positive attitudes toward creativity than teachers in government schools. These findings provide reliable evidence for international research on teachers' attitudes and perceptions toward creativity in bilingual children. Policy makers can also benefit from these results and pay more attention to teacher preparation programs in order to raise their efficiency in supporting and enhancing the creative inclinations of learners.

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Introduction

A decade ago, bilingual education in Saudi Arabia underwent relatively slow but steady, gradual changes. In 1927, English as a second language was introduced into secondary schools without a specific curriculum in Saudi Arabia (Alkhuzay, 2015). Later in 1953, English was introduced in middle and high schools with a defined curriculum (Al-Subahi, 1989). With the increasing importance of English as a widely accepted and dominant language, most business sectors require proficiency in spoken and written English. Some students left their home countries to join the scholarship system outside Saudi Arabia to study in English-speaking countries. In this new era, Saudi Arabia has witnessed tremendous development in all sectors, including Early Childhood Education (ECE), to achieve the Saudi New Vision 2030.

One of the most important features of this rapid development is the empowerment of women in education, which was manifested in the stage of assigning, where the education of boys in the primary classes was allocated to female teachers as a historical shift in education (Allehyani & Alfayez, 2022). The Saudi government has also paid attention to bilingual education for children, which has recently increased due to the interest in embracing international learners in its educational system (Allehyani, 2022a). The transformation process focused on shaping a new ECE system in Saudi Arabia and included improving school readiness by expanding equitable access to quality services, building new classrooms, strengthening partnerships with the private sector, engaging all education stakeholders, and hiring and training EC teachers (Ministry of Education, 2022). Several studies have shown that reforming education should be based on improving curricula and enhancing teachers' skills and participation in decision-making (Adams, 2000; Allehyani, 2022b; Baldauf, 2006; Fullan, 2007; Schmidt & Datnow, 2005).

At the end of 2021, the Saudi Ministry of Education integrated English into the first grade of EC

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schools to achieve the strategic objectives of the New Vision 2030 (Ministry of Education, 2022). These goals focus on developing students' English language proficiency skills and acquiring international best practices. Accordingly, bilingual education has received the attention of the Ministry of Education in the past years, but the urgent need to learn English alongside Arabic has increased, which has contributed to the new generation's acquisition of the primary languages. Cultural diversity education is adopted as part of the national curriculum that supports the achievement of the goals of Vision 2030, including equal representation of all groups of diverse students in the curriculum, in order to reduce racism and prejudice, and promote awareness and acceptance of learners (Allehyani, 2022c). Recent research stated that the Saudi educational system gives greater value and attention to promoting teachers' cultural and linguistic competencies in schools by enabling them to embrace all the required skills in teaching students from diverse backgrounds (Allehyani, 2022c). An important starting point is that the Ministry of Education and its various administrations in the Kingdom have an interest in applying learning methods for children that develop creative and critical thinking skills (Allehyani, 2019); nevertheless, this modern trend needs more time, materials, and rich environments. To my knowledge, there is no research that has addressed the attitudes of EC school teachers who teach bilingual students in the first grade in Saudi EC schools. Besides, there is little literature that examines teachers' attitudes and perceptions toward creativity in the Saudi context, which this study intends to focus on**.**

Literature Review

Creativity

For more than half a century, creativity and its concepts have been of great interest to researchers around the world. There are various definitions of creativity. Creativity appears in different creative contexts, such as innovations and new solutions, as well as effective social relationships and problem-solving skills (Nikkolaa et al., 2022). From the perspective of Vygotsky (1990), creativity is the reformulation of a child's learning in a new and creative perspective, which enriches the learner's knowledge, and the possibilities to reformulate this experience creatively. Plucker and Beghetto (2004) defined creativity as an interaction between the individual's skills and the environment in which it creates a set of productive, creative and unique ideas which are distinguished in the social context. Bloomberg (1973) defines creativity as a set of divergent thinking skills, including fluency, flexibility, originality, and elaboration. Fluency is the individual's capability to produce possible modifications. Flexibility is defined as the individual's ability to switch thinking between two different concepts. Originality is an individual's ability to produce unique and new responses that demand creative strength. Elaboration means the detail added to ideas to clarify them in depth. Creativity, as defined by Kharkhurin (2017), is a boosted normative cognition, which in turn strengthens certain cognitive mechanisms in the brain that add to an individual's creativity.

Bilingualism and Creativity

Certainly, the early stage of education plays a significant role in supporting children's creativity. A large body of literature has addressed bilingualism, monolingualism and creativity (Hommel et al., 2011; Kharkhurin, 2012, 2017; Lee & Kim, 2011; Leikin & Tovli, 2014). The results of a previous study confirmed that preschool education positively supports creative thinking skills in children (Dere, 2019). It found that the creative potential behind the performance of children who received preschool education was significantly higher than those who did not. There is considerable debate among researchers about the association between creativity and bilingualism. According to previous literature, bilingual learners outperform monolinguals in achieving tasks that require cognitive functions (Bialystok, 2005). Within a specific scope, there are plenty of studies showing the advantages of bilingualism in creativity, especially verbal. Nevertheless, many scholars agree on the advantages of bilingualism in diverse types of creativity, which include both verbal and nonverbal (Lee & Kim, 2011; Madhav & Anand, 2012). Particia and Johnson (2004) identified that there are four main aspects of creativity in which children can express themselves, which include language, music, art, and acting. Rashidova and Bobojonova (2019) argued that families should encourage their young children to gain knowledge, as they can learn faster to reach proficiency, and cognitive development, which distinguishes bilinguals from monolinguals. For example, children can use words to form sentences about pictures in which they share their thoughts with others.

Interestingly, in the competitive world, people think that being bilingual is more important and valuable,

and this justifies why there are more bilinguals in the world today than ever (Rashidova & Bobojonova, 2019). Scientists drew attention to a philosophical statement that bilingualism expands the cognitive abilities and creative performance of individuals (Kharkhurin, 2012). Earlier studies have proven the positive effect of bilingualism on creativity within different contexts. Some researchers have found that children who grow up in a bilingual environment become superior at creative cognitive tasks, such as problem-solving skills (Bialystock, 2005; Leikin, 2013; Leikin & Tovli, 2014). Moreover, other empirical studies have shown that there are no significant differences in fluency between monolingual and bilingual children (Bialystok, 2005; Bialystok & Shapero, 2005). When children had the opportunity to tell stories about the presented pictures and to ask descriptive questions about sizes, shapes, colors, and pictures, both monolinguals and bilinguals performed at a similar level (Particia & Johnson, 2004). Despite the important findings of previous research comparing creative performance between bilinguals and monolinguals, it focused only on cognitive skills.

Creativity in both genders has been the focus of studies in many kinds of literature. In 2018, a study by Castillo-Vergara et al. revealed that girls showed higher scores than boys in creativity's three dimensions, which include fluency, flexibility, and originality. Recent findings by Jia et al. (2020) revealed that boys were higher in creativity than girls, in particular in scientific tasks. Even though girls did not accomplish better than boys did, they showed more interest in science. Similarly, a correlation was found between creativity and imagination in both genders (Gleason et al., 2003; Hoff, 2005; Root-Bernstein& Root-Bernstein, 2006). Several studies found that girls have more imaginary companions and they produce more ideas than boys (Gündoğan et al., 2013; Pearson et al., 2001; Taylor et al., 2004). In contrast, a recent study by Betancourt et al. (2022) has proven that when children's creativity skills were examined, there were no gender differences found between them except in one measure of graphic creativity. Consequently, this can only be achieved with empowered and experienced teachers in the field of creativity.

Creativity in the Context of ECE

In the new era, with the growing awareness of the possibility of learning and developing creativity, researchers have turned to draw the attention of educators to the importance of developing creativity in ECE. Children's creativity should be enhanced by creating a stimulating learning environment that promotes creative methods represented in its various activities, which allows them to learn by doing, active participation, and experiential learning (Cachia et al., 2010). Moreover, creativity-oriented teaching experiences increased the professionalism of teachers. It has been demonstrated that teachers who have long teaching experience are more efficient in working with children and have positive attitudes about fostering creativity in children (Šemberger & Konrad, 2022). In 2015, Fidan and Oztürk found that teachers with long teaching experience have positive attitudes because they see their school's climate as more supportive and richer in terms of innovation resources. Another influential factor in promoting a creative environment is the type of EC school. Prior research confirmed that teachers who are working in private schools tend to be more creative and self-motivated at a higher level compared to teachers in public schools (Fidan & Oztürk, 2015). Hence, there is a need to maintain positive educational environments that support and enhance creativity among teachers and learners.

Furthermore, there has been a long debate about the limits of integrating creativity into the school curriculum. Whether it is a domain-general or domain-specific, such as art, or both (Gralewski, 2016; Han & Marvin, 2022; Robinson, 2017; Šemberger & Konrad, 2022). As a matter of fact, a large body of literature has found that divergent thinking was significantly more pronounced in children in creative activities related to the language domain (including storytelling and writing) but not in creative behaviors in the language domain in other areas (Baer, 1991; Han & Marvin, 2022; Runco, 1986). Han and Marvin (2022) assessed children's creativity in three areas, including storytelling, math-word problems, and collage-making tasks. Results showed that the great correlation between storytelling based on a picture book without words and word problem tasks in mathematics is attributed to general creativity. Children's creative potential should be developed further based on their own interests. In this sense, creativity includes a student's outstanding performance in school activities such as editing text for magazines, drawing, web design, singing or playing musical instruments, film production, or writing poems and short stories (Gralewski, 2016). The findings of Gralewski's studies (2016) confirmed that teachers associated creativity only with visual and musical performing arts rather than writing and scientific domains. To overcome

this dilemma, schools need to provide students with a stimulating learning environment, such as project-based learning, where they have more time, space and materials to solve problems productively and to encourage innovation (Schneider, 2014).

In a similar context, a previous study by Allehyani (2019) revealed that after applying the Twenty Thinking Keys strategies in the preschool classroom, children showed high levels of creative and critical thinking skills, with clear differences in literacy scores. It is worth noting that the positive attitudes of teachers toward the development of creativity in children cannot be transmitted automatically in educational situations but rather through building competencies and teaching experiences of teachers (Šemberger & Konrad, 2022). Scholars argued that developing creativity in children requires collaborative efforts from all officials and leaders in the educational sector to enable teachers to keep pace with the development of teaching curricula in creativity (Allehyani, 2019; Gralewski, 2016; Šemberger & Konrad, 2022; Yemez & Dikilitaş, 2022). Accordingly, teachers should constantly employ different creative approaches and reflect on their own practices to create a supportive EC learning environment.

Moreover, it is worth noting that there are myriad previous studies that focused on the effect of bilingualism on creativity (Adesope et al., 2010; Leikin, 2013; Yemez & Dikilitaş, 2022). Children's early acquisition of a second language may predict higher proficiency, which confirms bilingual learners have better creative performance (Karatas & Aktan-Erciyes, 2022). Bilingual children in bilingual preschools were found to be more creative (Karatas & Aktan-Erciyes, 2022). Teachers' attitudes toward creativity impact students' learning outcomes (Naeem, 2021). In 2021, Naeem stated that teachers should be aware of their changing roles in keeping pace with developments in techniques and precision tools to improve the child's mastery of the second language and develop their intellectual abilities and skills. Although these are significant findings, none of them focused on examining teachers' attitudes toward teaching bilingual children's creativity. To sum up, the positive association between second language proficiency and creativity has been proved, which confirms how it contributes to children's second language development.

While drawing on the existing literature, the main purpose of the present study is to gain a more comprehensive understanding of EC teachers' attitudes toward creativity, specifically first grade in EC schools. The age group of first-grade children in EC schools in Saudi Arabia ranges between 7 and 8 years. The questionnaire design was based on a quantitative model that answered the main research question: How do the factors (children's gender, type of schools, teaching experiences, and professional preparation program) construct teachers' attitudes toward creativity?

Method

Research Design

The current study adopted a quantitative approach. The researcher used the descriptive approach to analyze the data, which is the most appropriate design, as this research aims to explain the current situation as it is (Cohen et al., 2007). For this purpose, a questionnaire was designed to determine the attitudes of EC teachers toward creativity and its relationship to second language learning.

Participants

A total of 299 EC female teachers who are teaching bilingual children in the first grade in EC schools agreed to participate voluntarily in this study. The participation agreements were taken via signing the consent forms prior to conducting the current investigation. Participants were selected randomly from EC schools, including government and private schools in the western region. All participants were female teachers, as we mentioned previously, by assigning all EC schools, specifically the first, second and third grades classes, to female teachers in all regions of the Kingdom.

Data Collection

The questionnaire was constructed using Microsoft Forms, and it was disseminated by email and social networking sites such as WhatsApp. The questionnaire is divided into two sections. The first section consists of seven questions that highlight the demographic information of the participants. The second section consists of 22 questions inquiring about EC teachers' attitudes toward children's creativity. The items consisted of questions and

answer options, which consisted of a 4-point Likert scale. These options consist of (1 = strongly agree, 2 = agree, 3 = disagree, 4 = strongly agree). The set of statements about asking teachers about beliefs and opinions about creativity includes four responses.

Reliability Test

Reliability is the degree to which measures are free from error and thus yield consistent results (i.e., consistency of procedure). If the scale consistently shows the same score for individuals or statements of equal values, the procedure is considered reliable. The reliability analysis applied the level of Cronbach's α as the criterion of internal consistency in the questionnaire, that is, how closely a set of items are related as a group. Cronbach's alpha is a reliability coefficient that measures inter-item reliability or the degree of internal consistency/homogeneity between variables measuring one construct/concept (i.e., the degree) to which different items measuring the same variable attain consistent results. This analysis is necessary to study scale features and internal consistency between the questionnaire items and their correlation. The analysis was done by calculating Cronbach's alpha for independent variables. The values are (α =.089).

Instrument Validity

The researcher analyzed the correlation between all items in this study to confirm the tool's validity. Where all the results range between (.419**-.769**). As displayed in Table 9, the Means (*M*) and Standard Deviations (*SD*) were assessed for each construct and related items, and these items were then ranked in descending order according to the following scale: Low 1 - 1.75; Moderate 1.76 - 2.51; High 2.52 - 4 .

Results

Statistical Analysis

Data were analyzed using SPSS (v. 26). Frequencies and percentages were used to summarize the questionnaire questions.

Demographic Information

Regarding the first research question, *How long have you been teaching bilingual children?* Table 1 demonstrates the frequencies and percentage of the respondents' answers about the teaching experience of teaching bilingual children.

Table 1. The frequencies and percentage of teachers' experiences of teaching bilingual classrooms, teachers' levels of education and teaching different school types

	Frequency	Percent
Experience		
1-4	143	47.8
5-9	61	20.4
10-14	53	17.7
15 and more	42	14.0
Total	299	100.0
Level of Education		
Bachelor	142	47.5
Master	78	26.1
High Diploma	79	26.4
Total	299	100.0
School Types		
Private	191	63.9
Government	108	36.1
Total	299	100.0

Shown in Table 1 are the frequencies and percentages of respondents' answers to the first research question. The majority of teachers (47.8%) indicated that they have been teaching bilingual classes for 1 to 4 years. Fewer teachers (14.0%) clarified that they have been teaching bilingual classes for 15 years and above. Based on these results, most of the teachers were new teachers with less experienced teaching

backgrounds. Additionally, table 1 deliberates the frequencies and percentage of teachers' educational levels, which indicates the majority of teachers (47.5%) reported that they had completed bachelor's degrees. Fewer teachers (26.1%) indicated that they had master's degrees. Besides, table1 exhibits the frequencies and percentage of the respondents' answers to What is the school type you are teaching in now? The majority of teachers (63.9%) reported they were teaching in a private school, whereas the rest of the teachers (36.1%) indicated they were teaching in a government school.

Table 2. The frequencies and percentage of teachers' creativity preparation programs

	Frequency	Percent
Yes	113	37.79
No	186	62.21
Total	299	100.0

Table 2 displays the frequencies and percentage of respondents' answers: Have you received any prior guidance or training from the Ministry of Education on how to practice creativity in teaching and learning? Less teachers (37.79%) responded 'yes' because they were well prepared to teach bilingual children's creativity. More than half of teachers (62.21%) reported 'no' as they did not get any guidelines or training from the Ministry of Education regarding how to practice creativity. Accordingly, most of those teachers were well prepared and trained to teach children's creativity.

Table 3. The frequencies and percentage of teachers' creativity training forms

Creativity training forms	Frequency	Valid Percent
Booklets	17	15.04
Online resources	18	15.93
Workshops	23	19.7
Conference	10	8.85
Seminar	38	33.63
Competition	7	6.19
Total	113	100.0

As displayed in Table 5, teachers who said 'yes' indicating that they had been trained by the Ministry of Education were also asked a further question: What form did this take? The majority of teachers (33.63%) reported they attended creativity seminars, followed by other teachers (19.7%) who reported that they received workshop training. Fewer teachers (6.19%) indicated that they participated in creativity competitions. On the other hand, teachers who responded with 'no' indicating that they did not receive any preparation program were asked, How do you understand creative education? Table 4 shows the frequencies and percentage of teachers who indicated they have not received any preparation programs. The majority of teachers (46.24%) indicated that they had long teaching experiences in teaching creativity. Fewer teachers (6.45%) reported they read academic articles about creativity education.

Table 4. The frequencies and percentage of teachers' understanding of creative education

Teachers' understanding of creative education	Frequency	Valid Percent
Past education	18	9.68
Teaching experience	86	46.24
Extra course outside school	36	19.35
Academic Articles	12	6.45
Learning from mistakes	34	18.28
Total	186	100.0

Teachers were asked the question, What does creativity mean to you? As revealed in Table 5, the frequencies and percentage of teachers' responses to What does creativity mean to you? were varied.

Table 5. The frequencies and percentage of teachers' perceptions about creativity

	Frequency	Percent
Imagination	38	12.7
Design	21	7.0
Creation	36	12.0
Crazy Idea	35	11.7
Taking risks	26	8.7
Unusual idea	23	7.7
Problem Solving	95	31.8
Breaking Rules	25	8.4
Total	299	100.0

The majority of the teachers (31.8%) indicated that creativity is all about problem-solving tasks, followed by teachers who perceived creativity in general as children's abilities of imagination. However, fewer teachers (7.0%) recognized creativity as children's ability to design innovative objectives. Furthermore, teachers were asked, Which two subjects do you think offer the greatest potential for developing creativity in bilingual students? (See Table 6).

Table 6. Teachers' perceptions of the school subjects offer the greatest potential for developing creativity in bilingual

	Frequency	Percent
Drama and dance	58	19.4
Art and music	121	40.5
Computer and design	32	10.7
Math and science	47	15.7
Creative/imaginative writing	41	13.7
Total	299	100.0

As illustrated in Table 6, the majority of teachers (40.5%) agreed that art and music are the two most significant subjects in school that offer the most potential for developing creativity in bilingual students. Fewer teachers (10.7%) perceived computer and design as the less important subjects in relation to developing creativity in bilingual students' classrooms.

Table 7. Means and standard deviations for teachers' attitudes toward children's creativity

Statement	M	SD	Rank	Importance level
Both boys and girls are equally creative.	3.10	0.95	21	High
Students can achieve high scores without being creative.	3.13	0.87	18	High
Students with high IQs are more creative than average students.	3.27	0.83	5	High
Students can be more creative outside of school.	3.19	0.84	11	High
Creative students are mischievous and high spirited.	3.29	0.79	4	High
It's hard for students to be creative without motivation.	3.13	0.83	16	High
Girls use their imagination more than boys.	3.31	0.76	3	High
In the current education system, students can become more creative in school.	2.42	0.97	22	Moderate
Bilingual students are more creative than monolingual students.	3.35	0.78	1	High
Being creative involves breaking original rules.	3.27	0.78	6	High
Boys are more active than girls in risk-taking behavior.	3.33	0.73	2	High
Everyone can be creative in their own way.	3.14	0.91	15	High
Creative students always get high marks.	3.11	0.91	20	High
I empower students to share their creative works.	3.15	0.88	14	High
Creative ideas need to be fermented continuously over a long time.	3.25	0.71	9	High
Creative students have more competitive advantages.	3.13	0.89	19	High
Creative students don't like to follow school disciplinary rules.	3.19	0.83	12	High
All students are born able to be creative.	3.20	0.82	10	High
Creative teaching can raise children's learning interests.	3.27	0.76	7	High
Creativity is the performance of self-realization and confidence.	3.26	0.78	8	High
The more creative you are, the higher you get paid at work.	3.13	0.94	17	High
Creative ideas just happen dramatically.	3.18	0.85	13	High
Overall	3.17	0.70	-	High

Regarding the factors influencing teachers' attitudes toward creativity, it can be noticed that statement, 'Bilingual students are more creative than monolingual students', recorded the moderate level

mean value among the statements being rated by the study sample, thus was ranked first with a mean value of (*M*=3.35, *SD*=0.78). There were significant differences occurred between boys and girls in creativity levels from teachers' perspectives. Teachers indicated that boys are more active than girls in risk-taking behavior with a mean value of (*M*=3.33, *SD*=0.73). In addition, teachers were found to have positive attitudes toward girls. They reported that girls used their imagination more than boys, with a mean value of (*M*=3.31, *SD*=0.76).

Table 8. Means and standard deviations of teachers' attitudes toward children's creativity in relation to the study variables

Variables	Category	N	Mean	SD
School types	Private	191	3.30	0.67
	Government	108	2.95	0.70
Level of education	Bachelor	142	3.19	0.68
	Master	78	3.05	0.64
	PhD	79	3.26	0.77

While the statement 'In the current education system, students can become more creative in school' was ranked last with a mean value of (*M*=2.42, *SD*=0.97), the overall assessment of this variable was rated by a mean value of (*M*=3.17, *SD*=0.70), suggesting a moderate level of agreement in the study sample. To answer the study hypothesis, 'Effect of the variables (level of education and school types) on teachers' attitudes toward children's creativity', the means and standard deviations of these variables were analyzed (see Table 8). Table 8 displays an apparent variance in the means and standard deviations for EC teachers' attitudes toward children's creativity according to the study variables (teachers' level of education and types of schools). In order to show the significance of the statistical differences between the mean, a Two Way ANOVA analysis of variance was used (see Table 9).

Source	Type IV Sum of Squares	df	Mean Square	F	Sig.
Level of education	1.065	2	0.532	1.152	0.317
Types of school	7.268	1	7.268	15.732	0.000
Error	136.286	295	0.462		
Corrected Total	145.430	298			

Table 9. Two-way ANOVA for EC teachers' attitudes toward children's creativity on the study variables

As shown in Table 9, there are no statistically significant differences in teachers' attitudes toward children's creativity according to the variable (level of education). However, there are statistically significant differences in EC teachers' attitudes toward children's creativity according to the variable (types of schools) in favor of those who are teaching in private schools. Based on the recent study purposes revealed earlier on, results confirm that insufficient knowledge, traditional stereotyping based on the gender of learners, and shortcomings in qualifying female teachers to develop creativity and embrace it in educational curricula affect teachers' positive attitudes toward creativity.

Discussion and Conclusion

The current investigation on Saudi EC teachers' attitudes toward teaching bilingual children creativity yields several contributions. The first and most significant contribution of the current research was that the majority of teachers were less experienced in relation to teaching creativity, which narrowed their perceptions about integrating creativity into all subjects. Previous findings supported our argument, finding that longer teaching experience makes teachers more efficient at working with children to develop and enhance their creativity (Fidan & Oztürk, 2015; Šemberger & Konrad, 2022). Thus, the more experienced the teachers are in teaching and developing creativity, the more supportive and enriching the school climate will be for the students.

The second contribution of the existing study was that nearly half of the teachers had not received adequate preparation or training from the Ministry of Education regarding how to practice creativity. This result is in line with previous findings that teachers' positive attitudes toward creativity in children cannot

be transferred automatically in educational situations but that teachers must be adequately prepared to enable children's creativity in various fields (Gralewski, 2016; Šemberger & Konrad, 2022). Consequently, this matter requires education authorities to develop appropriate plans to enhance the competencies of teachers in the field of creativity and encourage innovation.

The third contribution was to reveal the belief of most teachers who teach bilingual students that art, music, drama, and dance are the most important subjects in the school for the development of creativity. Fewer teachers perceived computer and design as less important subjects in relation to developing creativity in bilingual students' classrooms. These findings are consistent with previous findings that stated that one of the major misconceptions is that teachers' attitudes toward creativity are specific to areas of individual interests, such as artistic activities (Gralewski, 2016; Robinson, 2017; Šemberger & Konrad, 2021). Creative classrooms can be achieved by providing students with project-based learning in which they have more time, space, and materials to solve problems productively, and to invent and recreate a stimulating learning environment (Schneider, 2014). While creativity is not a subject like art and music, it can be woven into the fabric of a school's curriculum. When teachers make lessons more related to students' lives and interests, they become more inclined to be creative in their own way. Hence, creativity needs to be included in all areas of curricula.

In the EC settings, results revealed that most teachers reported that the current education system does not support and embody creativity sufficiently, which is reflected in children's creative performance in school. Several scholars confirmed that children's creativity should be enhanced by creating a stimulating learning environment that promotes creative methods represented in its various activities, which allows them to learn by doing, active participation, and experiential learning (Cachia et al., 2010). Besides, general creative thinking skills should continue to be encouraged in every area of students' talent; however, more attention should be paid to increasing diversity in education systems (Han & Marvin, 2022). Moreover, regarding the factors that influence teachers' attitudes toward creativity, most believe that bilingual students are more creative than monolingual students. This result is consistent with previous findings that second language children show higher creative performance early and with higher proficiency, which confirms that bilingual learners have better creative performance (Karatas & Aktan-Erciyes, 2022).

Surprisingly, the results confirmed the existence of significant differences in the attitudes of EC teachers toward creativity in children of different types of schools in favor of those who teach in private schools. Commenting on this, the result of the study was consistent with the previous one, which confirmed the tendency of teachers working in private schools to be more creative and self-motivated at a higher level compared to teachers in public schools (Fidan & Oztürk, 2015). Regarding the type of EC institution, the study found that teachers who work in the private sector have positive tendencies toward embracing and including creativity in children's learning curriculum. This reinforces previous findings that teachers in private institutions tended to be more creative and self-motivated at a higher level compared to teachers in public schools (Fidan & Oztürk, 2015). Further analyses revealed that there were significant differences in teachers' attitudes toward creativity on the subject of gender stereotyping. According to teachers' self-report, girls were more likely to use their imagination than boys were, while boys were more active than girls in risk-taking. This result is inconsistent with the previous result by Betancourt et al. (2022), who found that there are no differences between the genders except in one measure of graphic creativity. More importantly, the results of the existing study indicate a deficiency, if not an absence, of teachers' awareness of the perception of creative performance in bilingual children.

Implications and Limitations

The current study is unique in the Saudi literature in the field of childhood education, as it focused on teachers' attitudes toward creativity and investigated their misconceptions, specifically toward teaching bilingual children, while most of the existing literature focused only on measures of creativity. The overall findings of the existing study exposed the urgent need to prepare teachers to integrate creativity into all subjects, which has a profound impact on the positive attitudes of teachers and contributes to correcting

misconceptions about the development of creativity among learners. It is worth noting that there is a prevalent belief among EC teachers about the existence of individual differences between children of both sexes in their creative abilities, in particular, imagination and risk-taking performance. The crucial element to stimulate bilingual children lies in empowering EC teachers' understanding and knowledge in the subject of creativity.

Taking these results as a reference can be useful for educational sectors to develop training and preparation plans for teachers to enable them to develop creativity in children of both genders. In addition, the results of this study can be beneficial for policy makers in the development of scientific projects for schools. Although the current study revealed children's tendencies to be creative in the field of art, music, and drama, there is a need to encourage children to be creative in the field of science and technology. Despite the importance of these findings for the current study, it is admittedly limited in one main aspect. The limitation is the possibility of teachers providing bias answers while responding to the items in the self-report questionnaire. More research needs to be done to reveal the obstacles in supporting and promoting creativity in young children, both at the Ministry of Education level and at the school level.

Declarations

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Research Article

How digital activities become (im)possible in Swedish school-age educare centres

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Abstract: This study explores how digital tools play a part in the practices of Swedish school-age educare centres (SAEC). The aim is to contribute knowledge about opportunities and/or obstacles in and with digital activities in SAEC practices. Data is produced using observations and conversations at five SAEC centres. The SAEC practice is found to be characterized by three different approaches to digital tools and their use: 1) A permeating practice, where digital tools are an integrated part of the whole day, 2) A happening practice, where digital tools are present on special occasions, and 3) A neglecting practice, where digital tools are absent. These differences can be connected to how teachers interpret their assignment but also to differences in competence, access, and interest in relation to digital tools. This entails that SAEC pupils are given unequal opportunities to develop digital skills.

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Introduction

Digital competence is both a requirement and a right for all children*, as for all citizens, if they are to be safe and functional in today's digital society (De Felice, 2017; Ferrari, 2013; Lupton & Williamson, 2017). Therefore, recent educational policy highlights that children, growing up in this digital culture, are entitled to understand and profit from digital activities (United Nations [UN], 2018; 2021; United Nations Educational, Scientific and Cultural Organization [UNESCO, 2019]; United Nations International Children's Emergency Fund [UNICEF], 2020). This is now a core objective of many national curriculum frameworks, in order to empower pupils to manage (digital) challenges (European Commission, 2014; 2017; Ilomäki et al., 2016). The integration of digital activities to promote these competences into educational practices has often become a complex process (cf. European Schoolnet, 2012; Hallett & Meanwell, 2016). On the one hand, educational policy has led to an increasingly visible consensus on what children should be taught and how, when digital technology and competence are highlighted. On the other hand, with growing pressure to digitalize this practice, teachers struggle to introduce digital activities and their notions of the purposes of care and schooling.

This tentsion raises the question of how much technology is appropriate to incorporate in education (Shirley, 2017). For various reasons, this complexity has become particularly relevant for many teachers in different afterschool programmes, which are often viewed as important arenas for developing pupils' digital skills (Micheli, 2013).

The focus of this study is on school-age educare centres (SAECs) in Sweden. This context is especially interesting, as the Swedish policy documents emphasize digital competence while leaving significant scope for interpretation and offering little guidance for SAEC teachers regarding digital activities (Martinez, 2019; Swedish Association of Local Authorities and Regions [SALAR], 2019; Swedish Parliament, 2020). The paper asserts that when Swedish SAEC centres are given the right conditions to achieve digital competence,

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* In the text, we use the terms 'child' and 'pupil' based on 'child' relating to a broader context, for example children's conditions, and 'pupil' relating to pupilship.

this creates a multiplicity of responses in terms of opportunities and obstacles for teachers' actions as they try to enact, uphold or resist the stipulated reforms or their assignment in the curriculum (Swedish National Agency for Education [SNAE], 2022; Wilcox, & Lawson, 2018).

Consequently, with a focus on SAEC teachers' work, this study explores how digital tools play a part in the practices of SAECs. The aim is to contribute knowledge about SAEC practices concerning opportunities and/or obstacles in and with digital activities. The study is based on the following two research questions:

1) What characterizes SAEC practices' different approaches to and use of digital tools?

2) What emerges as central for the possibility to engage with digital tools in activities at SAEC centres?

With this aim, the study stresses the importance of focusing on more consequential internal organizational dynamics, rather than relying on interpretations of "externally prescribed changes in curriculum, accountability measures, and instructional methods described in policy" (Hemmings, 2012, p. 199). This study will thus contribute significant knowledge about the dynamic processes where policies are interpreted and incorporated into the SAECs' digital practices. The concept practice is used to describe different conditions and doings in different SAEC centers. The findings can lay the groundwork for understanding factors that contribute to SAEC teachers' various approaches to digital tools and activities, which is essential for an informed discussion on how to develop both practice and policy.

In Sweden, most children aged six to nine attend SAECs before and after school and during school holidays (SNAE, 2019). The institution has a long tradition as part of the national education system. However, the objectives of SAECs were clarified in 2016 in a section of the national curriculum directed at SAECs (SNAE, 2016). The curriculum stipulates that the Swedish SAEC is a place for group-based learning, and that activities should be designed around each pupil's interests and adapted to children's culture and everyday life. SAEC teachers thus have a dual assignment: to create opportunities for meaningful leisure-time based on pupils' interests, curiosity and knowledge, and to contribute to pupils' development and learning (SNAE, 2022). For the latter assignment, specific objectives are designated in the curriculum concerning aspects such as science, social environment, play and communication. The curriculum also states that teaching should focus on digital competences. However, research shows that there is uncertainty among staff about how this multifaceted teaching task should be implemented and evaluated in SAEC (Ackesjö, 2022).

Previous Research

Skolforskningsinstitutet [The Swedish Institute for Educational Research] (2021) show in a research overview about SAEC that digital tools can create good opportunities for interaction and learning in SAEC centres and is also recognised as a meaningful activity by the pupils themselves. However the selection of previous research is delimited to studies that explore digital activities in the practices of SAECs with a focus on teachers, and that do not centre on how pupils learn to use digital technology in activities and for various learning purposes in different extended education contexts (e.g. Barkhuus & Lecusay, 2012; Davis & Fullerton, 2016; Harvard, 2015; Klerfelt, 2007; Lagerlöf, 2016; Lecusay, 2014; Prieto et al., 2016; Wernholm, 2021). Due to the limited number of studies of significance for the study's aim, studies in other educare settings that are relevant to the study at hand are also included.

In a study of Swedish SAEC teachers' work, Elvstrand and Lago (2020) show how these teachers struggle with the requirement to combine activities based on pupils' interests and goal-oriented activities. The teachers strive to satisfy the increasing expectations to be adept with a variety of technology-based activities for content delivery, goal-oriented learner support and edutaining or play (Stenliden et al., 2022). Still, the activities that take place in SAEC settings are usually characterized by informal learning situations where children's own perspectives are important (Saar, 2014) and teachers try to provide activities that take into consideration pupils' right to choose what they want to do, even though the choices often are limited (Elvstrand & Lago, 2020).

However, recent studies indicate that teachers might have an ambivalent attitude towards digital activities, even if the pupils themselves show an interest and emphasize the importance of having access to digital tools at the SAEC (Lago & Elvstrand, 2022; Martinez, 2019). Possible reasons include the historic importance of children's development and wellbeing being related to their practical "doings" at SAECs. Handicrafts and outdoor activities are generally valued at SAECs, and are presented by teachers as "good" choices for children. This ambivalent attitude is also highlighted by Stenliden et al. (2022), who examined teachers' reflections on the adoption of digital technology at SAECs. They identify that a tension emerges among teachers related to two main concerns about digital activities: keeping away and/or embracing them. The tension, constructed in an interplay between the teachers' different actions (avoid, protect, support, integrate and add value), leads to an uneven distribution of activities with digital tools at SAECs. David and Fullerton (2016) also recognized challenges with respect to implementing and distributing digital (networked) technologies and new media in afterschool settings, despite showing that pupils enjoyed considerably more opportunities to experience such learning activities in afterschool settings compared to school. The analysis associated the challenges of implementation with conflicts due to the participants' values and goals. Nevertheless, Micheli (2013) showed in her study how teachers in after-school settings who want to stop 'avoiding' new media and start thinking of effective ways to adopt them in their curricula, and who also wish to promote pupils' civic participation, ethical reasoning and critical thinking, can benefit from two important processes: (1) developing a "know-how" that is useful for incorporating new media literacies into teaching and (2) providing pupils with the knowledge and attitudes needed to participate actively in the media creation and production process. Furthermore, Martinez (2019, 2021) illustrates through interviews how SAEC teachers work to promote critical digital literacy and responsible online communication. SAEC teachers relate to these issues in a variety of ways, from not promoting critical digital literacy at all, to providing planned learning activities with this focus. In the SAEC context, spontaneous discussions promoting digital literacy are described as an important aspect by SAEC teachers. The role of teaching in spontaneous situations is further highlighted by Martinez (2021), showing how SAEC teachers describe their use of strategies such as active mediation, co-use and participatory learning to promote responsible online communication.

Another aspect highlighted by Martinez and Olsson (2021) that affects how SAEC teachers organize digital activities is their limited agency in relation to digital tools. Teachers are found to be dependent on others, such as principals, when it comes to accessing digital tools, and can rarely make decisions for themselves about which kinds of tools to use, when the tools are available, etcetera. They also often need to relate to the children's own digital tools such as mobile phones, which SAEC teachers tend to be view as a risk. Connected to these results is an early study by Klerfelt (2007), who showed how different roles are negotiated and how pupils emerged as brokers who connect popular culture with the SAEC's traditional and regular activities. Since the pupils were often more digitally skilled, this meant that the positions of power between pupils and teachers could be reversed.

Including digital tools can hence be troublesome and even uncomfortable for teachers, due to different beliefs and values. It can be difficult for teachers to keep up the institution's traditional norms when introducing digital activities, given the dynamics of such contexts (Bates, 2015). To gain a deeper understanding of these matters, the study introduces the theoretical framework of symbolic interactionism in the following section.

In summary, the previous research show a lack of research related to how digital tools are used in the SAEC practice. Most studies rather addresses how teachers talk about the use of digital tools and how the values this activities in relation to the SAEC assaignement.

Theoretical Framework (Inhabited Institutions)

Symbolic interactionism (SI) (Blumer, 1969) – more specifically, the concept of inhabited institutions – is used as a theoretical framework for the study to understand how practices are created when actors interpret their everyday lives in actions and negotiations. One point of departure in SI is that humans are social and reflective actors who create meaning through their interactions, and by interpreting these actions

they define different situations (Blumer, 1969).

As peoples' actions are connected to how they define situations, both the participants' actions and the context in which these actions take place are important (Blumer, 1969). This is an ongoing and ever-changing process, as pointed out by Everitt (2012). Accordingly, SI gives the study tools to understand how practices emerge in relation to the actors' interpretations, negotiations and actions concerning the use of digital tools at SAECs. These processes are closely connected to the SAECs' organizational dynamics, where visions, policies, school structure, school culture and moral orders are important (Hemmings, 2012). Hemmings, who has conducted school improvement research, stresses the importance of the interpretative process where the actors do the practice, i.e. SAECs. The framework is used to show and understand how the task of working with digital tools is interpreted and translated into SAEC practice in different ways, and what characterizes different SAEC practice approaches.

Method

This study builds on two sets of data: data from four SAEC centres participating in action research projects and data from one SAEC centre (outside the action research) as a complement to further examine the preliminary results that emerged in the action research projects. The participating SAEC centres are located in two different municipalities, and have different sizes and locations (e.g. rural/urban). Two of the SAEC centres, the Lake and the Mountain are located in multicultural areas while the other three are located outside two larger cities and is more ethnically homogeneous , The sampling was chosen to give a variety of SAEC centres with different teaching conditions, although we do not make a systematic comparison of the contextual conditions of the different SAEC centres.

The action research data consists of observations and reflexive group talks with teachers. The overall purpose of the action research was to work with the development of SAECs' teaching. A central aim in action research is that the research participants should be able to address issues that are important of them (Stringer, 2007), and the study was conducted at a time when new policy documents for SAECs were introduced at national level. In all five SAEC centres that took part, digital media was a topic that the teachers touched on. At some SAEC centres this has been a main focus, while at others it has been part of broader discussions. As a basis for this development work, the researchers conducted observations at the SAEC centres to gain knowledge about the activities. It is the data from these observations, together with the reflexive group talks, that forms the basis for this study. The total body of material consists of twenty reflection meetings and observations carried out on three afternoons at each SAEC. The observations were conducted in everyday situations in the SAEC and gave us insights into how digital tools were used in everyday practice at the different SAEC centres. The reflection talks dwelt on many different issues, but contain several examples of how the SAEC teachers talked about and related to digital tools and their use at SAEC centres in different ways.

For the school that did not participate in the action research, the data consists of observations carried out on three different occasion, and one interview with a teacher with a specific focus on how the SAEC centre uses digital media.

In total, the study builds on data from six different SAEC centres. All observations were documented with fieldnotes during the reflexive group talks, and the interview was recorded and transcribed. The combination of data methods provides an overall and varied insight into the SAECs' work with digital media, for example.

Analysis

Ethnographic observations (fieldnotes) and data from the reflexive group talks and the interview (transcripts) were analysed using a method inspired by reflexive thematic analysis (Braun & Clarke, 2006, 2019). This means that the content (fieldnotes and transcripts) was first processed by reading through the data. In this step, aspects of relevance to the study's focus on digital activities were noted. Thereafter, data was coded more systematically based on the focus of the study, and different approaches to and use of

digital tools were noted. These were then themed, and the overall way in which the six SAEC centres related to digital activities was made visible. In this step, central content and codes were connected and named. The analysis of data from the six SAEC centres resulted in three different approaches that characterized the SAECs' practices with digital tools. In relation to this, the three different types of practices were described, and different emerging characteristics were constructed:

1) A permeating practice
2) A happening practice
3) A neglecting practice

It is important to point out that such thematization entails an analytical simplification. The characteristics should not be seen as exclusive, but as generalized. Even though the different SAEC centres are characterized by specific approaches, these have been refined in the analytical process. In real life, actions and statements of various kinds occur at each SAEC centre, even though they can mostly be understood on the basis of a theme.

The results are based on an analysis of both observational data and transcribed conversations and an interview. In the text, observational data is used to illustrate the different practices. In line with an ethnographically inspired tradition (Hammersley & Atkinson, 2007), a holistic understanding of SAECs is used in the interpretation, and the transcribed conversations constitute an important contextual framework for understanding the observations. In line with Braun and Clarke (2019, p. 330), we wish to point out that the process of analysis involves a "reflexive engagement with theory, data and interpretation". This means that we have consistently reflected on and discussed the meanings and understandings of the data, and how this relates to theoretical perspectives. The process of reflexive thematic analysis needs to be understood as being closely related to both data and theoretical assumptions.

Ethical Considerations

Throughout the research process, we have taken the ethical guidelines for social science research formulated by the Vetenskapsrådet [Swedish Research Council] (2017) into consideration. Specifically, this means that we have informed all the participants about the overall aim of the research and have asked for their consent. When conducting observations and structured conversations, it is important to reflect on ethical considerations such as power issues in the relationship between the researcher and the participants. When researching teaching, the tension between what should be done according to the curriculum, school administration, etc. and what is actually done – due to one's own and local values – can put teachers in a difficult situation. We have therefore anonymized participating pupils, teachers and schools.

Results

The results show that digital tools play a part in the practices of SAECs in various ways. The SAEC practice is found to be characterized by three different approaches to digital tools and their use:

1) A permeating practice – where digital tools are an integrated part of the whole day
2) A happening practice – where digital tools are present on special occasions
3) A neglecting practice – where digital tools are more or less absent.

These practices will be illustrated in detail in the following three sections, one at a time. In parallel, the central aspects that have emerged according to possible engagement with digital tools in each one of the approaches are identified.

A Permeating Practice

The permeating practice characterizes an SAEC centre where digital tools are incorporated into activities, with teachers allowing or arranging activities that include digital tools in several ways. The teachers also use the tools themselves, for example when communicating with parents (e.g. blogging). The

Ocean is one SAEC centre that exemplifies this way of integrating digital activities:

> The SAEC teachers have been working for a while with digital tools as a project, with the aim not only of including digital activities for pupils, but also of developing knowledge among the teachers about digital tools. In the long run, the teachers want to expand and work in a more systematic way at the SAEC. That means that they have created a plan, which follows the pupils during their years at the SAEC, with a focus on developing certain abilities and skills related to digital tools. The goal is that the pupils should be able to get an awareness of different digital tools, like how an iPad works, making digital collages, producing a film and practising simple programming. These kinds of activities take place with a smaller group of pupils, like courses.

In the example above, the SAEC's activities are coordinated based on an idea that all pupils should learn how to use various digital tools and gain experience of a variety of digital activities. The planning for these kinds of practices is organized by the SAEC teachers in a structured way. The pupils take part in different digital activities in the form of group activities on various themes. These practices also entail more spontaneous digital activities initiated by both pupils and teachers. The following example at the Lake SAEC shows how the digital tools are also used in an informal and child-centred way.

> It is circle time. The theme of the month is the Nordic languages, and the SAEC teacher Martin explains to the pupils that they can practise language skills by singing songs in the different Nordic languages. "We can use the net," says Lisa, one of the girls. Martin continues and discusses with the pupils what kind of music they like. After a while they agree to watch the theme song from the Frozen movie, first in Swedish and then in Norwegian. Martin uses the interactive smartboard on the wall, and the pupils suggest what to search for and then what to choose.

This example shows how the teachers at the Lake SAEC centre have an overall plan for the SAEC's learning activities. Pupils will learn about the Nordic languages, which is a stipulated goal within the national curricula, and the teacher, Martin, indicates how they might approach this. He suggests that they will sing various songs in the different languages. By inviting the pupils to discuss what music they like, Martin continues to act according to the curricula as he engages in the pupils' interests and tries to adapt the activity. It is the pupils rather than the teacher who introduce popular culture and media to the activity, singing the theme song from the popular movie Frozen. The use of the interactive smartboard is a response to an initiative from the pupils. As Martin allows individual pupils to suggest which search terms they should use and then lets the pupils decide together which hyperlink they should choose, the activity can be seen as a common emerging digital activity. By including the interactive smartboard as a digital tool in the activity, Martin provides an opportunity for the pupils not only to visualize and discuss the lyrics of the theme song from Frozen, but also to use and develop their knowledge about searching the internet and various online sources. In this case, the digital tool is employed in the activities as an integral part of the SAEC's assignment and activities.

The teachers at the Ocean and the Lake say that they have knowledge of digital tools, and most of them explain that they are also able to use them in a flexible way. They frequently use digital tools as a specific topic, but also work with them interactively in relation to pupils' questions. This kind of practice is permeated by digital tools as something that they do not have any specific assertions or thoughts about.

The teachers describe themselves as guides with a task of interacting with pupils and giving them an understanding and knowledge about digital tools. The pupils have access to digital tools such as tablets to search for information or play games, and they are allowed to play computer games as an activity. The pupils also have some opportunities to influence the kinds of games they want to play. The teachers are involved when pupils use the digital tools, and discuss what happens in the games and talk about gaming culture with the pupils. Various digital tools thus play a part in the daily life at the SAEC via these kinds of practices. The digital tools are seen as important, and as a vital part of the education at the SAEC.

A Happening Practice

A happening practice differs from a permeating practice in that it characterizes an SAEC centre which only uses digital tools in its activities on special occasions. When digital tools are used in activities, they are not seen as an integrated part of the daily activities or routines. This practice can therefore be described as 'a happening' – something out of the ordinary – and the digital activities become activities of their own, distinct from other activities. One example of this is computer time at the Mountain SAEC:

> A popular activity is having computer time. If they want, every pupil in the third grade has access to a computer for 45 minutes per week. The pupils specify in a special notebook how many minutes they have used. Melker, Linus and Holger are sitting around one computer and playing an arcade game together. During their play, they frequently discuss how many minutes they will play the game for and how much of their allotted time they should use this afternoon. Mats – one of the teachers – passes them, and the boys stop him and ask: "When we are playing three together, can we share the time and put some minutes in the book." Mats shakes his head and says: "You know that we don't like too much computer gaming here, go out and play instead."

At the Mountain, the pupils have opportunities to use computers as shown in the example above. However, this use is strictly regulated, and the teachers say that they want to limit the pupils' access to digital tools. In the example, the boys try to negotiate with Mats by arguing that their time should be extended since it is a shared activity, and that they are cooperating with each other. In this case, the amount of time each pupil spends using the computer seems to be more important. Mats's response signals this when he says that they "don't like too much computer gaming", and he asks the pupils to go outside instead.

Even if computers are allowed, as in the example, the time spent using them should be limited. In the organization of digital activities, the use of digital tools by both pupils and teachers seems to be oriented more towards how and when these tools are used, and less towards what the pupils do with the tools. The teachers often act as an obligatory passage point, as the digital activities are always decided on, allowed or guided by teachers. The pupils cannot decide for themselves, but must ask the teachers' permission to play a computer game or use a tablet to interact with an app. Nor do they have much influence over what kinds of games they play. The teachers often associate including digital tools in everyday activities with difficulties, and digital tools are often seen as something pupils need to be protected from. In the example above, for example, pupils need to be protected from spending too long on sedentary indoor activities.

At SAECs characterized as happening practices, the teachers frequently describe a lack of knowledge about how to handle digital tools. The use of digital tools is often dependent on one or two teachers who are seen as experts. This is shown in the following example:

> During the former observations at the Forest SAEC, all kinds of digital activities have been absent. However, on this particular day, during the planning meeting, Malin – one of the SAEC teachers – explains that she has started a blog to show the SAEC's activities, "so the parents can see all the important things we do". Another teacher, Maria, says that she thinks it is a good thing, but she is not able to do it because she does not know how to blog. She is also worried that it will take too much time. Malin says that she will manage the blog and that she will use her private telephone. During the day, Malin takes photos frequently and she also talks with some pupils about what kind of things they can put on the blog. When we are back at the SAEC centre after some weeks, Malin explains that that they have paused the blog because it took some time to do, as she did it all by herself. She was also disappointed that there were so few visitors to the blog. There had also been some discussion at central level in the municipality about creating a central platform, so the SAEC centre was waiting for a decision on that.

This is an example of how digital activities such as blogging occur as a happening, i.e. the activity is temporary, and a long-term or common idea is missing. Malin represents the enthusiastic SAEC teacher who takes photos and engages pupils in the blog activity for a short period before the initiative fades away. The activity of documenting the SAEC's practice and blogging about it never became an integrated part of the daily activities at the Forest. The activity is dependent on Malin's enthusiasm for digital activities. As mentioned previously, she is a teacher who is rather skilful and can be seen as an expert, while the other teachers express a lack of competence. At the Forest, this becomes both an argument for not supporting the activity, as it takes too much time, and an obstacle for these teachers to contribute to the blogging activity. The fact that the activity depends entirely on Malin's interest and competence affects the possibility to make the blogging an integrated part of daily activities or routines. This might also be a reason why few readers engaged with the blog. The pupils and parents probably did not have enough time to adjust to and keep up with the opportunity to take part in the digital activity or engage in reading the blog posts during the short time it existed.

Another example of how digital activities are given a peripheral space – i.e. they are permitted and are given space, but are not integrated into the core activities – is also taken from the Forest SAEC. This time, teachers' and pupils' various standpoints are illustrated:

> The pupils have expressed a strong desire to be able to use their mobile phones. They have addressed this issue on several occasions during circle time. The teachers are positive, and say that they will give it a try. Some weeks later, the pupils say that they can now use their phones, "but it has not worked well because the adults decided that the mobile time should be on Tuesdays after four o'clock, and at that time almost all the pupils have gone home".

This reveals a difference in perspective towards the use of digital tools between the pupils and the teachers. In this case, the pupils want to use their mobile phones to spend time together, but the teachers scheduled the activity at a time when most pupils have left the SAEC for the day. In reality, the teachers placed strict regulations on using this kind of digital tool. Using mobile phones is central to pupils, but is not seen by teachers as a central part of SAEC activities.

At these SAEC centres, the pupils have no daily access to digital tools. The digital tools are brought out on special occasions, and are not used by either teachers or pupils in everyday activities. Even if the pupils at the SAEC centres are able to make choices about what they want to do during the afternoons, digital tools are often not an option because access is limited. Other reasons are that the teachers are unfamiliar with the technology and view other activities as more central. At same time, the happening practices are characterized by ambivalence among the staff in relation to digital tools. On the one hand, there is an awareness that digital activities are important to many pupils (e.g. mobile phones). On the other hand, there is a view that digital tools are risky or harmful. When SAEC teachers try to balance these approaches, digital activities are not completely lacking; they occur, but they are not integrated into the SAEC'centers everyday activities.

A Neglecting Practice

At the SAECs that are categorized as neglecting practices, digital activities are more or less absent. The teachers view these kinds of activities as not feasible in an SAEC environment. They often express strong beliefs that digital tools should not be a part of the education at the SAEC, along with arguments about digital tools, and especially computer gaming, as something today's children do enough of at home, and that SAECs should work with other kinds of activities to broaden pupils' perspectives and experiences. The teachers often refer to traditional SAEC activities like outdoor activities and play. They also highlight the risks involved with the use of digital tools, such as children becoming too sedentary or unsocial. In the teachers' descriptions of digital activities, they often described them in terms of something children do individually, and for this reason they are not an appropriate activity for SAECs. Overall, digital tools are seen as something risky and something that children need to be protected from. Another argument for not engaging with digital activities in these kinds of SAEC practice is that the teachers see themselves as lacking competence or knowledge of how to handle the technology. At these SAEC centres, digital tools are rarely used by the teachers themselves and they describe a stress in relation to the pressure to use digital tool more, i.e. for documentation. These SAEC centres are characterized by an absence of digital tools, and can thus be described as practices where digital activities are neglected.

Even if digital activities are not on the official agenda at these SAEC centres, digital activities are not totally absent from the pupil's social lives at the SAEC centres. The example below shows how pupils themselves use digital tools at the Volcano SAEC:

> It is early morning. It is summer break, so few pupils are present. Laura, Tage and Ina are sitting on a sofa. Laura has her mobile telephone in her hand. They are watching different YouTube clips together. "Turn it down," says Ina, "so no one notices it." They are laughing and negotiating which movie clips they will choose.

In this example, the pupils have brought a mobile telephone to the SAEC centre even if this is prohibited. Their opportunity to use it is probably related to the fact that it is summertime and boundaries are less strict, and that they hid their activity and kept it quiet.

At all six SAEC centres in the study – even those that do not offer any or very few digital activities – the observations show that digital activities, in form of games and popular culture, are important for many pupils. They discuss popular games and what their favourite YouTuber or gamer has done, and incorporate these elements into their play. This raises questions about SAEC teachers' role in relation to handling digital tools and the surrounding social world.

Conclusions and Discussion

Overall, the results show that digital tools are allowed to play a part in different SAEC practices in quite various ways. This entails SAEC pupils being given unequal opportunities to develop digital skills. The study is an important contribution, as there is generally a lack of studies examining obstacles and barriers in SAECs' practice in relation to digital tools. The studies that do exist, which often highlight teachers' descriptions of their work rather than the practice as such, indicate that there is an ambivalence about handling digital activities (Lago & Elvstrand, 2022; Martinez, 2019). By analysing the actual doing, the results contribute to deepening the knowledge on this. In line with previous studies (e.g. Martinez, 2019, 2020; Stenliden et al., 2022), the results of this study show that SAECs' digital assignments are received and interpreted in different ways, which results in pupils being able to take part in digital activities in very different ways. The results also show that there is a tension between the different assignments of the SAEC centres and how SAEC teachers interpret the prioritization of these in practice. In this study, this tension is between the extent to which teachers should control the content and pupils' opportunities for participation (Elvstrand & Lago, 2020; Saar, 2014). In relation to the informal education that takes place at SAEC centres does not always offer opportunities for all pupils to take part in digital activities, and the digital competence and rights are thus unequally distributed. If SAEC teaching is to give pupils the opportunity to discuss the risks and consequences of communication via digital tools, SAECs' digital mission needs to be challenged and developed in practice for all pupils to be given equal knowledge and rights.

Even though the study is limited, the findings contribute to the groundwork for understanding aspects that signify SAECs teachers' various approaches to digital tools and activities. The results indicate that in addition to the different SAECs' and teachers' scope for interpretation, aspects such as competence, access and interest are also central for the practice that arises. In addition, the processes that arise within the organization – i.e. the local culture – are important in terms of what is done in different practices. Conditions are part of how the local culture is negotiated and done, but which values are seen as central and how the SAEC assignment is interpreted also matters – is integrating digital activities a choice or not? The study shows that there will be a great variation in how the practices are done, and that pupils will encounter significantly different types of digital (or non-digital) activities. This has implications for teacher education as it pinpoints the importance of knowledge about digital tools and how they can be used in practice. In the long run, this also has implications for how the SAEC centres can be arenas that contributes to providing pupils with digital literacy, something that can be seen as a right to develop for all pupils.

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Research Article

'What are the goals of kindergarten?' Consistency of teachers' and parents' beliefs about kindergarten goals

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Abstract: The teachers' perceptions of the curriculum or their beliefs about how children learn can influence the quality of the teaching activity and its final outcome. Furthermore, the importance of an extended cooperation and mutual understanding between the actors involved (kindergarten teachers – parents) seems to be a crucial issue in order to establish a supportive framework. The research is structured in two dimensions. We seek the beliefs of kindergarten teachers (K-teachers) and parents, as well as their mutual perceptions of each other's beliefs, i.e., K-teachers for parents and parents for K-teachers, about the importance of kindergarten goals. The study was conducted in Greece, specifically in the region of Central Macedonia, in June 2021, after the re-opening of schools due to the Covid-19 pandemic. A sample of 330 K-teachers and 419 parents from public and private schools responded to closed-ended questionnaires, rating –on a 5-point Likert scale- the importance of 14 Kindergarten goals. We found that K-teachers generally underestimated parents' beliefs about kindergarten goals relative to their own beliefs and overestimated parents' beliefs about the 'academic' curriculum goals; a trend that was not confirmed by the parallel survey of parents' beliefs. In contrast, parents appeared to express a more balanced perception between their own beliefs and those they perceived K-teachers to hold. We also found evidence of differentiation between private and public schools. According to the findings, a harmonized perception of kindergarten goals by K-teachers and parents in private versus public schools is apparent.

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Introduction

Despite the research interest in recording the beliefs, attitudes and perceptions of K-teachers, there is limited research on their perceptions of kindergarten goals in relation to the curriculum (Bautista et al., 2016; Sverdlov & Aram, 2016). Similarly, parents' beliefs and assessments about the role and goals of kindergarten, although reflecting to some extent expectations, degree of involvement in the learning process, etc., have not been extensively researched. Therefore, exploring parents' and teachers' perceptions about Kindergarten goals will enhance our knowledge of their expectations and potentially provide patterns of beliefs related to demographic variables. A second research dimension, important for the study, refers to exploring mutual perceptions of each other's beliefs regarding the importance of kindergarten goals. The identification of the factors that influence the coherence of parents' and K-teachers' perceptions about kindergarten goals opens up areas of research to determine the conditions that constitute convergence and its outcomes, focusing on the child's all-round development.

The multidimensional field of early childhood education is often treated uniformly and undifferentiated in terms of the components that could enhance a more analytical understanding of the field, ignoring dimensions related to K-teachers and parents. This way, for example, despite the range of student attendance in private kindergartens in Greece, parallel to public ones, K-teachers and parents of

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private kindergartens, especially the latter as they have made a conscious educational choice, have not been included as an additional variable to assess the possible effects on attitudes, evaluations and beliefs about kindergarten goals. In the same direction, despite the fact that there exists the parallel operation of all-day and half-day programs, where the latter is distinguished for its extensive opportunities to exploit educational stimuli that seem to correlate with enhanced academic perspectives (Carbonaro, 2006; Cooper et al., 2010; Gullo, 2006), especially for families with limited cultural and social capital (Lau & Li, 2018), or the mixed age of attendance (4-5, 5-6), the most common research practice is their uniform and undifferentiated inclusion. The feasibility of our study is further fueled by the inclusion of variables that remained uncontrolled, namely, the correlations with partners' beliefs, which may have an impact on the quality of family-school interaction, shared attitudes and perceptions, mutual educational exchanges, etc.

In this context, we estimated the school year 2020/1 as to have been a challenging condition to conduct the survey: i) given the enforced and extended interruption of face-to-face teaching twice (November-December and March-May) for a total of 11 weeks due to the Covid-19 pandemic, and ii) the 'mandatory' daily contact of the key partners through synchronized distance learning platforms, to record their beliefs and assessments of each other regarding the kindergarten goals.

Pre-School Education and Curriculum

The integration and attraction of institutional and non-institutional interest in early childhood education, although it may start from different starting points of reflection, has prioritized its expansion as an education and political priority (Organisation for Economic Co-operation and Development [OECD], 2017; United Nations Educational, Scientific and Cultural Organization [UNESCO], 2019; Council of the European Union, 2019). From a primary framework of institutionalization and consolidation, often narrowly defined as the percentage of the respective age group attending early education schools, a more qualitative shift of concern is gradually emerging. New dimensions are introduced that broaden the debate with issues concerning: the quality of services provided, the scientific and professional development of teachers, the increase of public investment, the achievement of 'adequate child-to-staff ratios' (Council of the European Union, 2010), but also the shift of interest from the level of protection ('care'), to the level of education (Alexiadou & Altmann, 2020; OECD, 2015). The multifaceted reflection (Bassok et al., 2016; Miller & Almon, 2009), however, seems to exert selective and limited influences in Greece (Stellakis, 2018), while, a decisive shift in the kindergarten curriculum (socialization skills, play-oriented, etc.) towards a dominant academic orientation is recognized (Gallant, 2009; Kim et al., 2005).

This expanded framework of reflection in its final educational expression, as an educational policy, defines through institutional interventions the operational framework for pre-school education, formulating: broader and renewed curriculum goals, new knowledge areas and teaching approaches.

Greek Early Education Policy Context

The Greek educational system is characterized by its centralised structure. The formulation and institutionalization of educational policy follows a top-down process, with the central government, the Ministry of Education, and the bodies supervised by it, playing a decisive role (Fotopoulou & Ifanti, 2017; Ifanti, 1995). Thus, it is argued, that the interests of 'different stakeholders and broader societal needs' are not taken into account (Saiti & Eliophotou-Menon, 2009). The Institute of Educational Policy (I.E.P.) is the body responsible for the specialization of educational policy at the level of implementation. I.E.P. is an executive scientific body that supports the Ministry of Education on issues concerning all levels of education. The purpose of the institute is scientific research and 'technical support for the planning and implementation of educational policy'. Among its multiple responsibilities, it 'advices, at the request of the Minister of Education or makes ex officio recommendations to the Minister of Education' on matters relating to 'the curricula of primary and secondary education', and the 'initial and in-service training of teachers' (Law 3966, 2011).

A second level of interest concerns the organization of the studies of future K-teachers. University departments operate based on the constitutional principle of 'self-government'. Thus, departments

autonomously determine the structure and organization of their studies, both in terms of the 'content of the curriculum', and the time allocated to some of them (Stylianidou et al., 2004). Teacher training, however, and especially their practical training during their studies, seems to influence their experiences (Birbili & Tsitouridou, 2019).

The third level, which we call the 'Practice Level', refers to the implementation of the kindergarten curriculum as part of the wider educational policy. In Greece, the 'Cross-Thematic Integrated Framework for the Preschool Curriculum' of 2003 regulates the unified character of the kindergarten curriculum, defining the transition to a renewed pedagogical, didactic and methodological approach (Government Gazette, 2003). The programme is structured around five directions for the planning and development of activities in Language, Mathematics, Environmental Studies, Creation and Expression, and Information Technology. The key words of the programme are the flexibility of choices at all levels (subject matter, methodology, means, resources, etc.) (Doliopoulou, 2006) and the interdisciplinary approach to knowledge and teaching (Birbili & Myrovali, 2020) that integrates knowledge areas by developing appropriate practical and exploratory activities that are meaningful for children, so that they can develop their personality, socialize and learn about the world (Doliopoulou & Sousloglou, 2007).

The Greek kindergarten curriculum allows, given the multi-level hierarchy of goals, and the limited external recording and evaluation (Dimitropoulos & Kindi, 2017), differentiated and often individual levels of mediation of educational policy intentions (Birbili, 2017), thus, making, we would argue, each kindergarten classroom unique at the level of school teaching practice. The flexibility of the curriculum and teaching methodology allows for the selective use of individual goals, i.e. more emphasis on one area over others. This dimension, despite the uniform nature of the curriculum in all types of kindergartens (public – private), allows for potentially differentiated adaptations are influenced by K-teachers' beliefs and social preferences. Therefore, K-teachers' beliefs for the curriculum orientations (Cheung & Ng, 2000; Cheung & Wong, 2002), given the provided flexibility of the Greek curriculum, may influence their individual choices on teaching methodology, activation strategies, and perceived goals (Cheung, 2000; Ennis, 1992).

The fourth level, which we would define as the 'primary caregiver level', concerns the cooperation between parents and K-teachers. This level is determined by the reluctance of K-teachers to hand over part of their pedagogical work to parents, as they do not recognize them the required 'knowledge, skills and experience' (Sakellariou & Rentzou, 2007). Thus, given the absence of institutionalized norms of equal and extensive cooperation with parents, K-teachers seem to accept a basic, but limited, framework of communicative exchanges with parents. Therefore, joint planning and decision-making, parental involvement in the formulation of goals or in the design and implementation of the programme are not accepted by K-teachers (Doliopoulou & Kontogianni, 2003). According to Bæck (2010) teachers tend to emphasize the elements that constitute their professionalism, probably to protect their position as the only ones holding power in the social space of the school.

In Greece, the attendance in kindergarten became compulsory, despite the earliest widespread social acceptance of the institution. The widespread acceptance is evidenced on the high rates of attendance of students of the same age in kindergartens (Kamerman, 2006), although smaller compared to EU other countries mean attendance or availability (European Commission/EACEA/Eurydice/Eurostat, 2014; Petrogiannis, 2010), for one year of attendance in 2006 (Law 3518/2006), for all children aged five, and from 2018 (Law 4521, 2018) for two years of attendance, for all children aged four.

The Construction of Teachers' and Parents' Beliefs about Kindergartens Goals

K-Teachers

Extensive research has been conducted focusing on teachers' attitudes, perceptions and beliefs. The orientation of the research varies in terms of investigating beliefs, separating them into explicit or implicit, searching for factors that shape them, controlling their stability or variability, the role of the social context for their activation, etc. A thorough inventory and categorization of the extensive literature on teachers' beliefs has been carried out by Pajares (1992) and Fives & Buehl (2012) highlighting the multivalent

conceptualization and the absence of a coherent frame of reference. However, it seems that a common, explicit or implicit, dimension of the studies stimulates research interest in the function of beliefs as a factor related to educational attitudes and practices, but also as a variable influencing the quality of the educational output.

Pajares (1992) identified a 'messy construct', considered teachers' beliefs, provided a summary of theoretical approaches, urging the statement of a framework as 'fundamental assumptions' at the beginning of a study on teachers' beliefs. Under this conception we perceive beliefs as a system of relatively stable, subjectively constituted assertions that work both ways; influencing the understanding and interpretation of social reality and of the self in it, in a process of affirmative validation of initial beliefs. Beliefs are hierarchically interconnected with other cognitive and affective structures and are often held intact under conditions of rational challenge. Their dynamics lie in their selective activation processes for defining tasks, selecting appropriate cognitive tools, planning actions and making decisions.

Teachers' beliefs seem to be characterized by a homogeneity rooted in 'communities of practice', symbiotic exchanges of practices, values, meanings and a repertoire of communal resources (Lave & Wenger, 1991; Wenger, 1998). A perspective of high interest in our study is the exploration of beliefs in the broader context of teachers' positioning and the social context of their integration (Barkatsas & Malone, 2005; Kagan, 1995). Despite the support for a formation of teachers' beliefs before they enter the profession (Di Santo et al., 2017; Florio-Ruane & Lensmire, 1990; La Paro et al., 2009; Thompson, 1992) and their relative stability (Brousseau et al., 1988; Gooya, 2007; Kagan, 1995; Moseley et al., 2002; Thompson, 1992), we are more interested in a less pessimistic perspective that focuses on the extent of variation in teachers' beliefs and their variability in different contexts (Fives & Buehl, 2012). This perspective is consistent with Bandura's 'triadic reciprocal causation' theory that 'human adaptation and change are rooted in social systems. Therefore, personal agency operates within a broad network of socio-structural influences' (1997, p. 6), according to which two-way relationships between the individual's self-system, their actions and the environment are recognized. Therefore, teacher's individual beliefs about the social context of an action (school) mutually influence each other and are influenced by the social context and their own practices. We would argue that an interactive symbiotic framework between individual beliefs and social context can determine the prospect of developing practices as part of beliefs.

Parents

Parents of pre-school students do not seem to have a precise understanding 'of what a kindergarten-ready child should be like' (Hatcher et al., 2012), acknowledging, however, the demanding nature of kindergarten, which they value mainly at the level of literacy skills. It seems that this is a roughly structured belief of the role of kindergarten that can be confirmed, refuted, or revised during the transition to kindergarten. However, K-teachers express a broader conception of kindergarten readiness: in children's physical and social development and curiosity, over other discrete skills (Heaviside & Farris, 1993, s.21).

Research data seem to converge on different causal associations between parents' beliefs, assessment of educational goals and practices at home. Of vital interest is the development of literacy for preschool children, particularly the search for the degree and intensity of the influence of parents' demographic characteristics on their beliefs about literacy.

Among other factors, parents' educational and socio-economic level seems to correlate with their beliefs and to determine home practices and academic expectations (Alexander et al., 1994; Conger et al., 2010; Fung & Lam, 2012). These two factors, the educational and socio-economic level, are considered to determine the self-confidence and willingness, or ability to engage parents in literacy activities (Bandura et al., 1996; Lareau, 2003; Whitehurst & Lonigan, 1998). A common conclusion of the studies is the positive correlation between the higher social and educational capital of the family and positive literacy prospects. The early or parallel active involvement of parents in literacy processes seems to determine the convergent or divergent evaluation of the importance of kindergarten goals, the establishment of a common and mutually valued framework of communication and educational action for the benefit of students (Tsirmpa et al., 2021). In addition, since a positive relationship between literacy using digital tools (Neumann, 2014),

and the use of Information and Communication Technology in promoting pupils' learning (Braslauskiene et al., 2017), has been identified, the assessment of the usefulness of digital literacy by teachers and parents seems to be an important parameter, especially in the distance learning process, where parents assume a complex teacher-guide and parental role (Garbe et al., 2020; Lau & Lee, 2020).

The degree of parental satisfaction regarding the school is not a neutral, detached parameter from the goal, i.e. the all-round development of children. Satisfaction has been argued to be related to the degree of parental involvement in their children's education, a process that also seems to be associated with further development of children's skills (Fantuzzo et al., 2006), choice of school type (Goldring & Phillips, 2008) and the extent of information provided by the school (Friedman et al., 2006). Hausman and Goldring (2000) found that high levels of parental satisfaction correlates with the choice of educational environment, which is based on the level of the education provided and shared values, factors that further enhance participation. The choice of educational environment seems to offer greater satisfaction to parents (Goldring & Hausman, 1999). According to this, we further hypothesize that satisfaction is enhanced in the case of private education given the payment of tuition fees, which probably acts as a self-fulfilling prophecy of verification of initial expectations and beliefs, on the basis of a reciprocity of tuition fees and optimal educational services, compared to free state education.

The quality of the family-school relationships and the shared framework of understanding and goals seems to have an impact on supporting learning (Hamre & Pianta, 2001). Epstein (2001) introduced the theory of 'spheres of influence' that maximize the conditions for children's academic and social development when the two spheres overlap. In this context, teachers take on an important role in managing and setting complex and often contradictory goals: expectations, normative framework (Sofou, 2010) and socio-cultural values and beliefs. Widespread acceptance of the curriculum importance by teachers in establishing shared goals and visions that would facilitate increased communication with colleagues and parents has been recognized (Sofou & Tsafos, 2010). However, constraints and inhibitions seem to interfere by distorting ideal formulations of normative framework, interpretation, understanding and implementation.

Research Questions - Hypotheses

The main goals of our study are: i) to examine K-teachers' and parents' perceptions about kindergarten goals, ii) to document the mutual assessments of kindergarten goals between them, and iii) to identify factors shaping differentiation and are related to demographic, cultural, educational or professional characteristics.

The research questions of the study were: What are K-Teachers' and parents' beliefs regarding the goals of the kindergarten curriculum? What are K-teachers' perceptions about the beliefs of parents? What are parents' perceptions about the beliefs of K-teachers?

In relation to the research questions, we assume that:

a) K-teachers share a common set of beliefs about kindergarten goals regardless of demographic, educational or professional characteristics. However, we expect variations due to the social context of their integration (for example: region of school, public or private school, etc.).
b) K-teachers rate the 'socio-emotional' goals of kindergarten as more important than the 'academic' ones.
c) K-teachers rate parents' beliefs about kindergarten goals significantly lower than what parents themselves ultimately attribute to them.
d) Parents rate kindergarten goals relatively equally, but lower than K-teachers.
e) Parents rate academic goals (literacy, math skills) higher than K-teachers. In particular, we expect parents of lower educational and socio-economic level to rate higher the academic goals than parents of higher educational and socio-economic level.
f) Parents and K-teachers in private schools express a convergent perception of the importance of kindergarten goals compared to public schools.

Method

The Research Design

On the basis of previous research studies with a related orientation (Bautista et al., 2016; Sverdlov & Aram, 2016) we identified a common framework of kindergarten goals that seems to partially cover those of the Greek curriculum. For a more complete understanding of kindergarten goals included in the questionnaires, we additionally processed the linguistic rendering and we also considered it appropriate to segment the concepts of previous studies into more specific goals that are consistent with the Greek curriculum.

Pilot research - Questionnaire

We conducted a pilot study evaluating the initial consistency reliability of the questionnaires by opportunity sampling of 30 K-teachers and 50 parents. The questionnaire was structured in two directions, seeking to capture the beliefs of K-teachers and parents and an estimation of each other's beliefs about the kindergarten goals. K-teachers and parents were asked to state their estimation for a range of fourteen kindergarten's goals using a five-point Likert scale (1= 'not important at all' to 5= 'very important').

In the pilot phase we tested the validity of the questionnaire at the level of the K-teachers, i.e., checking whether 'an instrument measures what it was designed to measure' (Field, 2009, p. 11) and, in particular, its validity with regard to the presentation and relevance of the measurement instrument (clarity of items, appropriateness of difficulty, reasonableness of the items in relation to the perceived purpose, etc.) (Oluwatayo, 2012). We chose face validity and included an open-ended question asking K-teachers: i) to indicate an additional goal that they thought it could have been included, and ii) to evaluate on a five-point Likert scale the questionnaires' completeness in terms of the 14 kindergarten curriculum goals we set.

In the first part, the open-ended question, 12 of the 30 questionnaires in the pilot survey suggested another goal, but none collected more than two suggestions. In the second part, the evaluation of questionnaires' completeness, 86.7% rated it as having 'absolute completeness' (5 on the Likert scale), 9.9% rated it as having 'satisfactory completeness' (4 on the Likert scale) and only 3.33% rated it as having 'sufficient completeness' (3 on the Likert scale). Thus, the kindergarten goals in the two questionnaires were kept in their original form: 1) Positive attitude to learning, 2) Solving everyday problems, 3) Self-esteem, 4) Socialization, 5) Literacy, 6) Digital literacy, 7) Creativity – Imagination, 8) Inquiry-based learning - Curiosity, 9) Autonomy in learning, 10) Math skills, 11) Motor skills, 12) Taking initiatives, 13) Multicultural principles, and 14) Tradition - Religion.

Internal consistency was measured using the Cronbach's Alpha value. In the K-teachers' questionnaire, assessing the importance of kindergarten goals per se, the Cronbach's alpha was 0.848, whereas, in the second part, i.e., the K-teachers' assessment of parents' beliefs about kindergarten goals, the Cronbach's alpha was 0.906. The corresponding control of the parents' questionnaire in the first part, i.e. personal beliefs about the importance of kindergarten goals, the Cronbach's alpha was 0.797 and in the second part, i.e. parents' perception about the importance of the goals from the K-teachers' point of view, the Cronbach's alpha was 0.828.

Research Sample

The survey was conducted from the 1st to the 25th of June 2021 in two directions: to K-teachers of public and private schools and to parents of the same schools in the Region of Central Macedonia, Greece. Given the socio-economic characteristics of the region in relation to the national counterpart population, the representativeness of the sample and the possibility of generalizing the results through systematic random sampling is ensured (Jawale, 2012). The region is the largest one in terms of acreage compared to the other 13 regions and the second largest in terms of population (almost 20% of the country's population), comprising 7 of the 54 prefectures. Two lists of kindergartens (public and private) were generated by random placement. The sample schools were selected by randomly selecting the first member (school)

followed by selecting each subsequent member from the same list by applying a fixed interval of consecutive units (4 for private and 5 for public).

Sample Descriptive Statistics

As shown in Table 1, private sector K-teachers have less educational experience and lower educational level attainment than their public sector counterparts. A similar variation can be found in the relevant literature on educational qualifications (Tooley, 2005) and educational experience (Nsiah-Peprah, 2004). The majority of K-teachers are women confirming the dominance of female in the Greek kindergarten classrooms (Stamelos & Emvaliotis, 2001).

Table 1. Descriptive data sample of K-teachers

				Public	Private
		n	%	n	n
Gender	Male	8	2.4	8	0
	Female	322	97.6	278	44
Years of Service	1-10	78	24	53	25
	11-20	170	51	156	14
	21-30	66	20	62	4
	31 +	16	5	15	1
Employment Status	Permanent	195	59.1	195	0
	Substitute K-teachers	90	27.3	90	0
	Hourly	2	0.6	1	1
	Fixed-term contract	16	4.8	0	16
	Open-ended contract	27	8.2	0	27
Education Level	Bachelor	184	55.8	147	37
	Retraining Center (Didaskaleio)	31	9.4	29	2
	Master Degree	114	34.5	109	5
	PhD	1	0.3	1	0

According to Table 2, the parents' questionnaire was overwhelmingly answered by mothers (84%), with a mean age of 38.04 years, while 89.5% are native and the gender of the students is equally represented in the survey, in line with the general characteristics of our reference population. A comparison with the data of the Hellenic Statistical Authority confirms the reliability of the sampling of the survey, as in the general population attending kindergartens in Central Macedonia in a total of 27.470 students in the school year 2019/20 (last updated data), 16.278 (59.25%) attended in urban areas, 6.721 (24.46%) in semi-urban, and 4.471 (16.27%) in rural areas, with respective percentages in our sampling: urban 57.8%, semi-urban 25,3% and rural 16,9%.

We also identify: younger-aged parents who answered the questionnaire in public kindergartens (M=37.5, SD=5.4) compared to private (M=38.9, SD=5.05), different levels of education between public and private schools (Secondary: 30.2% - 6.9%, Post-secondary: 24.0% - 12.5%, Tertiary: 37.8% - 45.1%, Master: 6.2% - 29.2%, PhD: 1.8% - 6.3%) and reverse programme selection. Specifically, the attendance ratio in public schools is 181 (65.8%) in a half-day program and 94 (34.2%) in a full-day program, while, correspondingly, in private schools it is 42 (29.2%) and 102 (70.8%).

Table 2. Descriptive data sample of parents

		n	%
Gender	Male	67	16.0
	Female	352	84.0
Age	21-30	30	7.15
	31-40	268	63.96
	41-50	116	27.68
	50 +	5	1.19
School Area	Rural	71	16.9
	Semi-urban	106	25.3
	Urban	242	57.8
School Type	Public	275	65.6
	Private	144	34.4
Mother Tongue	Greek	375	89.5
	Albanian	29	6.9
	Other	15	3.5
Education Level	Secondary	93	22.2
	Post-secondary	84	20.0
	Tertiary	169	40.3
	Master	59	14.1
	PhD	14	3.3
Student Gender	Male	213	50.8
	Female	206	49.2
Student's Age Group	4-5	190	45.3
	5-6	229	54.7
Programme	Half-day	223	53.2
	All-day	196	46.8

Data Collection Process

Randomly selected schools were informed by e-mail about: the details of the survey, its purpose, the anonymity of the participants and the content of the questionnaire in digital format. Those that responded positively were sent paper questionnaires for K-teachers and parents. The parents' questionnaires were translated, by bilingual translators, into English, and Albanian, and then a back translation was conducted in Greek. Any discrepancies found between the original and the back translated versions were corrected. According to the data of the Hellenic Statistical Authority for 2019, about 5.5% of the students in kindergartens in Central Macedonia are foreigners. The majority of these pupils (92%) come from non-EU countries (mainly Albania) and only 8% come from EU countries or are of unknown origin.

A total of 183 public kindergartens and 24 private kindergartens were randomly selected. 91 public schools (rate 49.72%) and 15 private schools (rate 62.5%) responded positively. 1200 questionnaires were distributed to the parents of the children attending public kindergartens with a return rate of 23% and 320 questionnaires were distributed to the parents of the children attending private kindergartens with a return rate of 45%. We estimate that about 13% of K-teachers in the region of Central Macedonia from public kindergartens and about 20% from private kindergartens participated in the survey sample.

Data Analysis

In analyzing the data two kinds of nonparametric tests were conducted, while the assumptions of normality not met. We report the differences between groups as mean ranks, while the shape and the location of the distributions of the dependent variable were different (Karadimitriou et al., 2018). In order to determine whether or not there is a statistically significant difference between groups we performed the nonparametric Kruskal-Wallis, when having 3 independent groups. We use the mean rank in order to calculate the H-value, i.e. the test statistic for the Kruskal-Wallis test. We then run post-hoc tests for multiple comparisons to determine the differences between groups (Ostertagová et al., 2014). Respectively, when having to deal with an ordinal variable (Likert scale on Kindergarten goals) by a single dichotomous

categorical independent variable, we performed the Mann-Whitney U test.

Results

In analyzing the data, we found a common belief among K-teachers about the importance of kindergarten goals that did not seem to depend on demographic or professional characteristics. Table 3 reflects a high importance rating in almost all goals, particularly the 'socio-emotional' (self-esteem, socialization, creativity-imagination), compared to the 'academic' goals (literacy, math skills).

Table 3. K-teachers' ratings on the importance attributed to kindergarten's goals

	K-teachers per se (n=330)	K-teachers per parents (n=330)
Goals	**Mean (SD)**	**Mean (SD)**
Positive attitude to learning	4.71 (0.53)	4.24 (0.82)
Solving everyday problems	4.82 (0.46)	3.75 (0.96)
Self-esteem	4.88 (0.38)	3.90 (0.91)
Socialization	4.92 0.30)	4.37 (0.80)
Literacy	4.35 (0.68)	4.52 (0.71)
Digital literacy	3.74 (0.86)	3.49 (1.06)
Creativity – Imagination	4.86 (0.41)	3.66 (0.96)
Inquiry-based learning – Curiosity	4.75 (0.51)	3.51 (0.94)
Autonomy in learning	4.66 (0.59)	3.76 (0.99)
Math skills	4.58 (0.62)	4.09 (0.90)
Motor skills	4.78 (0.48)	3.83 (0.92)
Taking initiatives	4.76 (0.52)	3.63 (0.97)
Multicultural principles	4.78 (0.51)	3.29 (1.03)
Tradition - Religion	3.92 (0.92)	3.53 (0.98)

We tested K-teachers' beliefs pertaining to the independent variables: school area (rural, semi-urban, urban), years of service (1-10, 11-20, 21+), educational level (Bachelor, Training Center, Post-graduate studies), employment status (Permanent, Substitute K-teachers), and school type (Public, Private). A Kruskal-Wallis test showed that there was no significant difference of the mean ranking of education level between the 3 groups. A Mann-Whitney U test also showed that there was no significant difference of the mean ranking of employment status and of school type.

The same procedure (Kruskal-Wallis test) showed that there was a significant difference of the mean ranking of school location on 'self-esteem' and 'inquiry-based learning - curiosity' between the 3 groups. Specifically, on 'self-esteem' there was a significant difference of mean ranking $x^2(2)=6,506$, $p<0.05$. The conducted post hoc test for pairwise comparisons found that the 'rural' group was significantly different to the 'urban' group ($p=0.011$). On 'inquiry-based learning - curiosity' goal there was a significant difference of mean ranking $x^2(2)=9,031$, $p=<0.05$ and the post hoc test for pairwise comparisons found that the 'semi-rural' group was significantly different to the 'rural' group ($p=0.033$), and to the 'urban' group ($p=0.003$).

The independent groups concerning the 'years of work' variable seem to have a statistically significant difference of mean ranking (Kruskal-Wallis test) for the 'inquiry-based learning - curiosity' and 'math skills' goals. A Kruskal-Wallis H test showed that there was a statistically significant difference on 'inquiry-based learning - curiosity' goal [$x^2(2)=6,291$, $p<0.05$], and the conducted post-hoc test for pairwise comparisons found that the '1-10' years of service group was significantly different to the '11-20' years of service group ($p=0.024$). Concerning the 'math skills' goal there was a significant difference of mean ranking $x^2(2)=7,738$, $p<0.05$, and the conducted post hoc test for pairwise comparisons found that there was a significant difference between the same groups ($p<0.01$).

The highest importance rating of 'socialization' among the 14 goals is probably due to the need to restore social interaction, which was interrupted by the pandemic and the school closure. The 'literacy' goal, despite its particular importance in the curriculum, is rated low among the 14 goals, even compared

to parents' beliefs per se. 'Digital literacy' is rated as the least important goal by K-Teachers, a finding of particular interest.

As shown in Table 3, K-teachers appear to rate parents' beliefs about kindergarten goals lower than their own. We searched for possible factors that may influence their perception by utilizing variables related to demographic and professional characteristics. Specifically: school area (rural, semi-urban, urban), years of service (1-10, 11-20, 21+), educational level (bachelor, training center, post-graduate studies), and school type (private, public). A Kruskal-Wallis test showed that there was no significant difference of the mean ranking of education level between the 3 groups. Also, no statistically significant difference was found in relation to school area between the 3 groups.

The 3 groups of the independent 'years of service' variable seem to have a statistically significant difference of the mean ranking (Kruskal-Wallis test) in the following goals:

a) Solving everyday problems: $x^2(2)=9,767$, $p=0.0008$***. The post hoc analysis for pairwise comparisons found that the '11-20' group was significantly different to the '21+' one ($p=0.022$),
b) Self-esteem: $x^2(2)=6,733$, $p=0.035$*. The post hoc analysis for pairwise comparisons found that the '11-20' group was significantly different to the '21+' one ($p=0.044$),
c) Creativity-imagination: $x^2(2)=6,003$, $p=0.049$*. The post hoc analysis for pairwise comparisons found that the '11-20' group was significantly different to the '21+' one ($p=0.046$),
d) Autonomy in learning: $x^2(2)=8,711$, $p=0.013$*. The post hoc analysis for pairwise comparisons found that the '1-10' group was significantly different to the '11-21' one ($p=0.31$),
e) Math skills: $x^2(2)=9,998$, $p=0.007$**. The post hoc analysis for pairwise comparisons found that the '11-20' group was significantly different to the '21+' group ($p=0.034$), and to the '1-10' group ($p=0.027$),
f) Taking initiatives: $x^2(2)=11,707$, $p=0.003$**. The post hoc analysis for pairwise comparisons found that the '11-20' group was significantly different to the '1-10' ($p=0.028$), and to the '21+' ones ($p=0.010$).

In Table 4 we conducted a Mann-Whitney U test for the assessment of parents' beliefs by K-teachers according to the type of school they work in.

Table 4. Summary of differences between public and private K-Teachers' beliefs for parents on Mann-Whitney U Test

Kindergarten Goals	Public K-Teachers (n=286)	Private K-Teacher (n=44)		
	Mean rank	Mean rank	U	Z
Positive attitude to learning	162.09	187.69	5.315	-1,792
Solving everyday problems	161.35	192.44	5.106*	-2,112
Self-esteem	157.06	220.36	3.878***	-4,308
Socialization	161.41	192.06	5.123*	-2,218
Literacy	167.43	152.97	5.740	-1,106
Digital literacy	163.60	177.83	5.749	-0,957
Creativity – Imagination	162.01	188.19	5.293	-1,774
Inquiry-based learning – Curiosity	163.10	161.09	5.606	-1,226
Autonomy in learning	160.26	199.59	4.792**	-2,659
Math skills	164.04	175.00	5.874	-0,755
Motor skills	160.07	200.78	4.739**	-2,769
Taking initiatives	160.72	196.55	4.926*	-2,425
Multicultural principles	159.72	203.05	4.640**	-2,934
Tradition - Religion	167.04	155. 50	5.852	-0,781

*p< .05, **p< .01, ***p< .001

We observe that the statistical significance in the differences in the mean ranking of the groups is mainly found in kindergarten goals that concern the formation of the students' personality, with elements

that shape conditions that facilitate their autonomous development and their smooth social integration. The identification of these differences in kindergarten goals, as assessed by K-teachers' beliefs of parents, seems to go beyond demographic characteristics and is mainly found at the level of school type, comparing the mean ranking between public and private sector K-teachers. Having therefore controlled and reduced the possible influence of other variables, we found that K-teachers' perceptions of parents' beliefs about kindergarten goals differ depending on the type of school, which opens a perspective for further investigation and identification of the factors that shape it. Given that 'generational echoes are double-edged for both parents and teachers' (Lawrence-Lightfoot, 2003; p. 5), identifying divergent interests, expectations and hierarchies, the illustration of mutual perceptions between public and private schools, in Figure 1, seems to reflect multiple areas of differentiation. Thus, a convergent trend of parents' estimation of K-teachers' beliefs and a corresponding trend among K-teachers for parents is shown. Moreover, it is evident that the perceptions of K-teachers and parents in private schools about kindergarten goals are more consistent than in public schools.

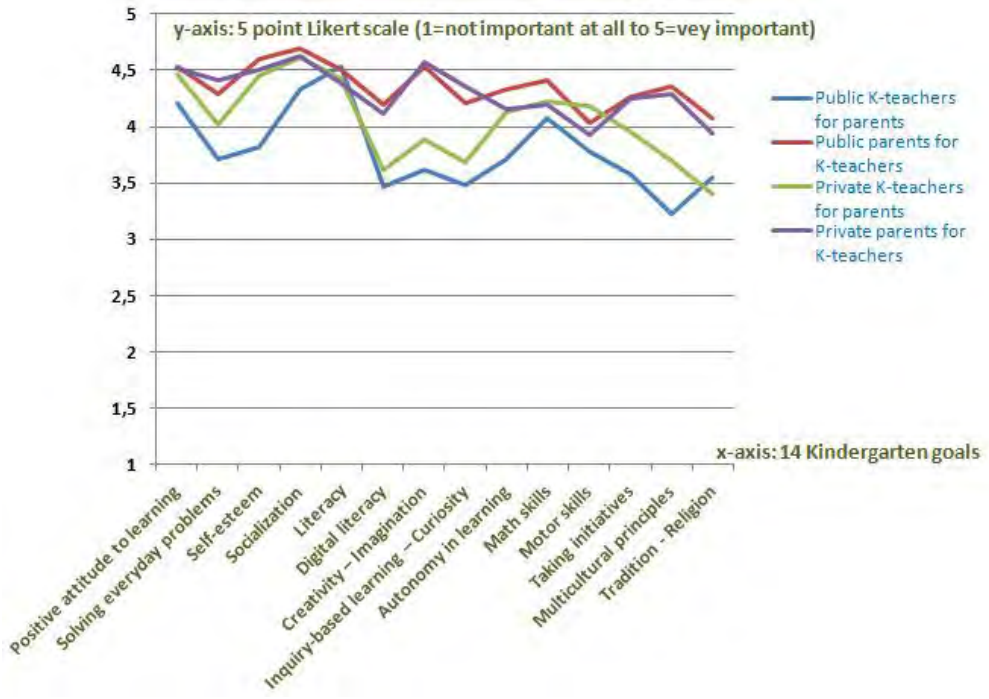

Figure 1. Mutual perceptions of K-teachers' and parents' beliefs about kindergarten goals in public and private schools

However, K-teachers' assessments of parents' beliefs do not seem to be consistent with parents' own perceptions of the importance of kindergarten goals (Table 5).

Table 5. K-teachers per Parents' Beliefs, Parents' Beliefs per se and for K-Teachers regarding the goals of kindergarten

Kindergarten Goals	K-teachers per parents (n=330)	Parents per se (n=419)	Parents per K-Teacher (n=419)
	Mean (SD)	Mean (SD)	Mean (SD)
Positive attitude to learning	4.24 (0.82)	4.54 (0.61)	4.53 (0.62)
Solving everyday problems	3.75 (0.96)	4.48 (0.68)	4.33 (0.71)
Self-esteem	3.90 (0.91)	4.72 (0.53)	4.57 (0.66)
Socialization	4.37 (0.80)	4.80 (0.46)	4.67 (0.61)
Literacy	4.52 (0.71)	4.45 (0.65)	4.46 (0.63)
Digital literacy	3.49 (1.06)	4.04 (0.78)	4.18 (0.76)
Creativity – Imagination	3.66 (0.96)	4.57 (0.62)	4.55 (0.62)
Inquiry-based learning – Curiosity	3.51 (0.94)	4.31 (0.68)	4.26 (0.71)
Autonomy in learning	3.76 (0.99)	4.38 (0.71)	4.27 (0.78)
Math skills	4.09 (0.90)	4.38 (0.71)	4.34 (1.72)

Motor skills	3.83 (0.92)	4.14 (0.85)	4.00 (0.90)
Taking initiatives	3.63 (0.97)	4.35 (0.72)	4.25 (0.76)
Multicultural principles	3.29 (1.03)	4.42 (0.74)	4.34 (0.72)
Tradition - Religion	3.53 (0.92)	4.00 (0.99)	4.03 (0.83)

Parents' beliefs are quite high (except for the 'digital literacy', 'motor skills' and 'tradition-religion' goals), but lower than K-teachers' self perceptions (Table 4). What is evident in Table 5 is the significant difference between K-teachers' belief about the importance of kindergarten goals for parents and that expressed by the parents themselves in the survey. Parents, like K-Teachers, also rate the importance of 'digital literacy' low.

A Kruskal-Wallis test showed that there was a significant difference of the mean ranking between parents according to the school district (Rural, Semi-urban, Urban) in the following kindergarten goals:

a) Literacy: $x^2(2)=15,754$, $p<0.001^{***}$. The post hoc analysis for pairwise comparisons found that the 'urban' group was significantly different to the 'semi-urban' (p=0.004), and to the 'rural' ones (p=0.005),

b) Creativity-Imagination: $x^2(2)=9,927$, $p<0.007^{**}$. The post hoc analysis for pairwise comparisons found that the 'rural' group was significantly different to the 'semi-urban' (p=0.022), and to the 'urban' ones (p=0.007),

c) Inquiry-based Learning - curiosity: $x^2(2)=8,442$, $p<0.015^{*}$. The post hoc analysis for pairwise comparisons found that the 'rural' group was significantly different to the 'urban' one (p=0.011),

d) Tradition-religion: $x^2(2)=21,656$, $p<0.001^{***}$. The post hoc analysis for pairwise comparisons found that the 'urban' group was significantly different to the 'semi-urban' (p=0.009), and to the 'rural' ones (p<0.001).

It appears that the 'school area' variable is a limited factor in differentiating parents' beliefs about kindergarten goals. Interestingly, parents from 'rural' areas seem to express different perceptions of the goals 'creativity-fantasy' and 'exploratory learning-curiosity' than parents from 'semi-urban' and 'urban' areas. Parents in 'rural' areas recognize higher the importance of 'literacy' compared to the groups 'semi-urban' and 'urban'.

Table 6 shows the differences in the mean ranking for parents according to their educational level, i.e. Lower (secondary and vocational) and Upper (tertiary and post-graduate).

Table 6. Summary of differences between Lower and Upper parents' educational level beliefs (Mann-Whitney U Test)

Kindergarten Goals	**Lower (n=286)**	**Upper (n=44)**		
	Mean ranking	**Mean ranking**	**U**	**Z**
Positive attitude to learning	200.13	217.22	19.669	-1.659
Solving everyday problems	196.18	220.11	18.970*	-2.284
Self-esteem	196.91	219.58	19.099**	-2.561
Socialization	197.63	219.05	19.227**	-2.732
Literacy	218.91	203.49	19.840	-1.451
Digital literacy	217.60	204.44	20.071	-1.191
Creativity – Imagination	193.23	222.27	18.448**	-2.885
Inquiry-based learning – Curiosity	185.71	227.77	17.117***	-3.869
Autonomy in learning	221.64	201.49	19.356	-1.865
Math skills	219.38	203.14	19.757	-1.505
Motor skills	227.85	196.95	18.258**	-2.770
Taking initiatives	195.95	220.28	18.930*	-2.243
Multicultural principles	203.78	241.55	20.316	-1.012
Tradition - Religion	231.29	194.43	17.649**	-3.249

*p< .05, **p< .01, ***p< .001

Higher educated parents express the belief that they attach greater importance to goals that promote the formation of an autonomous and exploratory personality, taking initiative and enabling the child to manage situations, compared to lower educated parents who focus on goals that they themselves can manage and appreciate.

In the corresponding Mann-Whitney U test for parents' beliefs in relation to the students' attendance programme (half-day, all-Day) and age group (4-5, 5-6), we found no statistically significant differences in the mean ranking. We did, however, find that the mean ranking in the 'public' and 'private' school attendance groups differed significantly in the following goals: 'literacy', 'math skills', and 'tradition-religion', i.e. in the core of the curriculum. Regarding the 'literacy' goal, the mean rankings in the 'public' and 'private' groups was 220.43 and 190.09 respectively; the two groups differed significantly (Mann-Whitney U= 16.932, $p<0.01$). Regarding the 'math skills' goal, the mean ranking in the above groups was 218.40 and 193.95; the two groups differed significantly (Mann-Whitney U= 17.489, $p<0.05$). Finally, regarding the 'tradition-religion' goal, the mean ranking was 224.34 and 182.62; the two groups differed significantly (Mann-Whitney U= 15.857, $p<0.001$).

Conclusion and Discussion

The study aimed to record the beliefs of the two key actors in the educational process about the kindergarten goals (first dimension of the study) and their respective perceptions of each other (second dimension of the study). The findings illustrate the individual convergences and divergences of beliefs that confirm previous research work, but also open new areas of reflection.

K-Teachers

By exploring K-teachers' perceptions about kindergarten goals, we identified a pattern of shared beliefs among them that did not appear to depend on demographic or professional characteristics, verifying the *hypothesis a*. Thus, the independent variables: school area, years of service, educational level, employment status and school type, had limited statistically significant effect on K-teachers' perception of kindergarten goals. As for *hypothesis b*, it indeed seems that our findings are in line with previous studies (Abry et al., 2015; Grace & Brandt, 2006; Hatcher et al., 2012; Hollingsworth & Winter, 2013), as K-teachers rated 'socio-emotional' goals as more important compared to 'academic' goals. In addition, given the context of the pandemic, the goal of 'socialization' becomes the overriding goal of kindergarten, a finding that needs to be re-examined with the restoration of normality.

In contrast, we found a low perception of K-teachers about the importance of 'literacy' and 'digital literacy' (rated as least important goal) regarding kindergarten goals. If the belief about the goal of 'literacy' is transferred to the level of everyday educational practice, it constitutes a potentially problematic situation, given the decline of 'literacy' due to distance learning (Bao et al., 2020). The effect of distance learning on literacy seems, however, to be confirmed and also applies to mathematical skills (United Nations Children's Fund, 2022), which also seem to be underestimated as a kindergarten goal by K-teachers. Similarly, the lower importance rating on 'digital literacy' contrasts with the importance of teachers in the implementation of innovation and the adoption of digital technology (Jimoyiannis & Komis, 2007; Pelegrum & Law, 2003). So, it becomes a potential inhibiting factor in the development and promotion of a goal that refers to the ability to apply information and communication technology for the rational and critical use of context with cognitive and technical skills (Techataweewan & Prasertsin, 2018), as well as critical thinking (Naresh, 2020). K-teachers' beliefs are likely to be influenced by the disruption of face-to-face teaching during the pandemic and the difficulties that arose because of that, creating a broader wave of negative perceptions of technology as a learning tool.

The findings of the survey, in its second dimension, seem to confi*rm hypothesis c, i*.e., that K-teachers generally underestimate parents' beliefs about kindergarten goals relative to their own beliefs. In addition, K-teachers rate their own belief of the importance of kindergarten goals, except for 'literacy', higher than their perceptions of the importance they believe parents have, a finding that is also in line with previous research data (Sverdlov & Aram, 2016). We also found that K-teachers overestimate parents' beliefs about

the 'academic' goals of the curriculum, a trend, however, that was not verified by the parallel investigation of parents' beliefs. Searching for factors that might influence K-teachers' perceptions about parents' beliefs about the importance of kindergarten goals, we identified only the variable 'years of service'. The statistical significance, however, of the variable on K-teachers' perceptions does not appear to independently constitute an explanatory framework and is therefore subject to future investigation. In contrast, we found that teachers' perceptions of parents' beliefs differ depending on the type of school (private – public) they work in.

Parents

Corresponding to K-teachers, we investigated parents' perceptions about the importance of the kindergarten goals. We found out that parents' beliefs are quite high, although lower than K-teachers' perceptions of themselves, a finding that confirms *hypothesis d.* Parents, like K-teachers, also rate the importance of 'socialization' higher among the 14 goals. As regards *hypothesis e*, the findings of the study did not fully confirm that parents rate academic goals (literacy, math skills) higher than K-teachers. Specifically, parents did indeed rate 'literacy' goal quite higher (M=4.45) than K-teachers (M=4.35), but lower the 'math skills' goal compared to K-teachers. As revealed, K-teachers rate 'math skills' goal (M=4.58) higher compared to parents (M=4.38). Similarly, to K-teachers, parents rate 'digital literacy' to be one of the least important goals. This finding, about the 'digital literacy', may be due to a doubtful understanding of the goal and the additional burden and difficulties they had to face during the distance education process (Dong et al., 2020; Foti, 2020; Garbe et al., 2020; Lee et al., 2020). However, this overlooks the 'opportunity' for students to acquire enhanced digital skills during the pandemic (Pavlenko & Pavlenko, 2020). In this case, we expected a higher perception of the importance of the 'motor skills' goal (Guan et al., 2020; The World Organisation for Early Childhood Education [OMEP], 2020), which we did not find. Perhaps through the 'socialization' goal, which is rated as the most important by parents, the need for physical and social reactivation of children is expressed. Our findings seem to converge with other extant research findings where, while cognitive items are identified as important, goals related to children's development are also high or higher ranked (Grace & Brandt, 2006; Hatcher et al., 2012).

In *hypothesis e*, consistent with the literature, we expected parents with lower educational and socio-economic levels to rank academic goals higher than parents of higher levels. The results indeed identify elements of variation that should be investigated further in future work. Parents in 'rural' areas, given their significantly lower educational level compared to the survey population, seem to express a conventional orientation that recognizes the importance of 'literacy' and their own inherent inability to contribute in this direction (Lareau, 2003; Whitehurst & Lonigan, 1998). In the same pattern the 'tradition-religion' is overestimated as a kindergarten goal by parents in 'rural' areas, a finding that can be explained by the coherent identity dimension of tradition and religion in small local communities (Merry, 2005). According to the findings, parents of higher educational level are oriented towards mastery goals (Kaplan & Maehr, 2007), rating as more important goals the ones that emphasize higher level skills, rather than purely academic ones, a finding that is consistent with the existing literature (Tang et al., 2021).

The findings of the survey, in its second dimension, seem to identify interesting issues. Parents express a more balanced perception between their own beliefs and K-teachers' beliefs. The dimension of valuing kindergarten goals, which may determine K-teachers' and parents' expectations, perceptions and practices, seems to be maintained despite the extensive and enforced physical presence of K-teachers, parents and students, and their participation in the hybrid educational space (Munastiwi & Puryono, 2021) during distance education in the 2020/1 school year. Thus, although a condition of mutual communicative exchanges and augmented partner interaction was imposed, (Firmanto et al., 2020) which additionally constitutes a positive determinant of students' achievement (Xu & Gulosino, 2006) and overall experience (Epstein, 1986), a significant belief divergence was identified. As we stated in *hypothesis f*, there seems to be evidence of greater consistency in the beliefs of parents and K-teachers in private schools compared to public schools. We would therefor argue that there is a harmonisation of perceptions in private schools between parents and K-teachers. We attribute, given similar findings, which converge on limiting the

influence of demographic factors, the correlation of the harmonization of K-teachers' and parents' beliefs to reasons possibly related to the selection criteria of private educational services and to processes of continuous active involvement, communication and interaction in the evolving educational actions between them.

The results of the research can be used in two directions: for new research work and for updating the framework of communication and cooperation between key actors in early childhood education. On the basis of previous researches, we identified new parameters of reflection that seem to constitute new areas of influence on parents' and teachers' perception about kindergarten goals. Therefore, re-examining them in identical or different national and cultural contexts will enhance our understanding of the dynamic influences on belief formation, potentially highlighting new research parameters. The survey results also seem to adequately substantiate the need to renew the institutional framework for teacher-parent communication and interaction. This dimension feeds the reflection on the activation of strategies for creative exchanges between school and family that could constitute a balanced framework of cooperation and mutual understanding of motivations, expectations, and beliefs. This framework could contribute positively to the improvement of the overall educational context of students.

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