

Competence to Teach a Point of Intersection for Swedish Preschool Quality

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Abstract

This article aims to highlight preschool teachers' teaching competence as one critical aspect of Swedish preschool quality. The study was based on quality evaluations using the Early Childhood Environment Rating Scale. Data was collected from 153 preschools and analysed with descriptive statistics for the subscales. The standpoint of the article is that children learn and develop by communicating and interacting with their environment, highlighting how intentions and circumstances between and within systems and contexts affect preschool teaching and conditions for children's learning. To evaluate high-quality preschool education, two subscales with the lowest quality scores, *Language and literacy* and *Learning activities*, were chosen to explore teaching, as they embrace items and criteria that depend on teaching. The results highlight distinct patterns of variation in quality. The competence to teach is a point of intersection for the quality in preschool, and conditions for children's learning. Areas in need of competence development are subject, and didactic knowledge competence in relating to children in dialogue, child-focused strategies, clarifying and communicating an object of knowledge by integrating play, care, and learning in teaching.

Keywords: preschool, teaching, quality, children's learning

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Introduction

The aim of this article is to highlight one critical aspect of Swedish preschool quality: preschool teachers' teaching competence. This competence, or the lack thereof, could shed light on the variations in Swedish preschool quality. The research question we address is: does teaching contribute to preschool quality? The study was based on quality evaluations using the Early Childhood Environment Rating Scale (ECERS-3) (Harms et al., 2014), with a focus on the subscales of *Language and literacy* and *Learning activities*. These subscales embrace items that requires specific teaching competences. For example, for children to learn about mathematics, science and language, teachers need both subject and didactical knowledge to create conditions for children's learning in these areas.

The focus of the article is directed towards relations between policy, curriculum goals, and teachers' competence to teach in relation to conditions created for children's wellbeing, development and learning in preschool. Core aspects are teaching and didactic knowledge. The concept of teaching in preschool is, in this text, defined as communicative, interactive and relational, and needs to be understood in a social and cultural context (Williams & Sheridan, 2018). Didactics is understood as teaching from a reciprocal perspective that promotes and enables children's lifelong learning. In a teaching situation, people's different experiences and perspectives are communicated, coordinated, reflected, and critically examined in order to establish, achieve and maintain a temporary, but sufficient, intersubjectivity; that is, consensus on a shared object (Siraj-Blatchford, 2007). From such a perspective, didactics can be about creating the conditions for children's learning of central aspects of different content in preschool (Broström & Vejjleskov, 2009). High-quality conditions, created for children's wellbeing, development and learning in preschool, are influenced by ideologies and theories developed in global ecosystems, and which inextricably link together time, culture and society. Thus, the meaning of preschool teaching, didactics and quality is tied to both the influence of culture, context and societal intentions, as well as to the political and educational intentions for preschool (Sylva et al., 2006).

The article's theoretical perspective is based on the standpoint that children learn and develop by communicating and interacting with their environment (Bronfenbrenner, 1979,

1986; Bronfenbrenner & Morris, 2006; Vygotsky, 1986). Bronfenbrenner's ecological model (1979) has been under constant and dynamic change and development through which it has come to give greater consideration to social and cultural constructs and to the interdependence, interactions and power relations between and within contexts and systems. Thus, children's learning and development cannot be confined to being psychological and biological processes, they are also linked to the cultural, social, linguistic, and practical contexts in which learning takes place (Veraksa & Sheridan, 2018). Through the ecological systems theory, variations in preschool quality and teaching are examined from different interrelated strata: macro (policy, curriculum), exo (preschool teacher education, research, etc.), meso (preschools), micro (preschool, teachers and children) and chrono (time) system levels. Together, these theoretical perspectives contribute to an understanding of how policy intentions affect education in preschool, the profession of preschool teaching and conditions for children's learning in preschool.

From this perspective, the high quality of preschools and teachers' teaching competence are closely linked, as the knowledge of individuals and institutions is constituted and maintained through interactions in specific cultural contexts. According to research, variation in preschool quality gives children unequal conditions for learning, development and wellbeing (Sammons, Toth, & Sylva, 2015; Sheridan et al., 2009; Sylva et al., 2010). Exploring the gap between policy, values, curriculum goals, preschool practice, and preschool teacher competences emerges as one of the most important current challenges that relates to promoting conditions for children's early learning and development. Ultimately, this research can contribute to an understanding of the importance of developing preschool teaching, thus bridging the gap between intentions and reality in preschool learning environments.

Depending on a country's intentions for children's early education, teaching can be given different meanings and different expressions. Dissimilar values and intentions with early education result in different ways of advocating for the child and childhood, which, in turn, require different teacher competences. The distinction in objectives can be interpreted in terms of focus, processes, the presence or absence of predefined goals in relation to knowledge, skills and attitudes that children are expected to acquire in preschool, and assessment requirements. The Swedish preschool curriculum is often associated with a

social pedagogic approach that includes the aim to strengthen children's identity, self-esteem and social competence, aiming to foster a democratic citizen. Developing into a play- and learning-oriented approach as social goals are closely interlinked with children's academic and cognitive learning and development, aiming to support the child in developing a complex repertoire of play competence, reasoning abilities, creative thinking, social skills, knowledge-sharing, and global competencies (OECD, 2015). However, such an approach requires specific teaching competences, in terms of theoretical, pedagogical and didactic knowledge, in order to challenge children's learning in a play- and learning-oriented way (Sheridan & Williams, 2018).

Research on preschool quality

The importance of high-quality early learning for children's right to equality and a good start in life has put emphasis on how preschool is organised in terms of content and form. Longitudinal research projects in the United States, Australia and the United Kingdom have shown that high-quality preschools support all children's overall development and learning experiences, and enable positive interactions and communication among preschool teachers and children (Manning et al., 2019; Sylva et al., 2010). In addition to literacy and numeracy skills, research has shown that high levels of preschool quality correlate with fewer instances of behavioural problems, higher social competence, positive/skilled peer interactions and lower levels of impulsiveness (National Institute of Child Health and Human Development, 2005). On a national level, there is empirical evidence showing that high-quality preschool provision leads to overall enhancements in quality of life and wellbeing. On the contrary, low-quality preschools seem to reproduce existing socio-economic structures, which leads to poor social, emotional, educational, health, economic, and behavioural outcomes for at-risk children (Hansen et al., 2016; Manning et al., 2010; Sylva et al., 2010). Therefore, low-quality preschools become a breeding ground for social inequality and inequity that is disadvantageous to children and their families, and society as a whole. Societal investment in the youngest children is socio-economically profitable, as there are not only short-term benefits for the child's development, but also long-term benefits for the child as well as society. Essential is to break negative social patterns, and

allow positive life trajectories, which could be possible with early interventions through high-quality preschool education (Heckman, 2000; Sylva et al., 2010). The importance of high-quality preschool has in many countries led to radical and paradigmatic changes in attitudes, policies and pedagogies surrounding preschool education and care (OECD, 2015). Today, many preschool curricula around the world are constituted of a mixture of academic and social objectives for children (OECD, 2012). This is also the case for the Nordic countries (Vallberg Roth, 2014).

Embedded in curricula, objectives and guidelines are views on the child and childhood (Moss, 2004) and approaches to early childhood education (Bennett, 2010). In a Portuguese context, Nabuco and Sylva (1995) used the ECERS to study the effects of three different preschool curricula (the High Scope, João de Deus and Movimento da Escola Moderna) on children's entry into primary school, finding that the type of preschool curriculum had a differential impact on children's learning and self-perceptions in primary school. The Effective Provision of Pre-school Education (EPPE) project provided information about the effects of different types of preschool education on children's later progress, development and adjustment to school, as well as descriptions of good preschool practice. The quality was found to be higher overall in preschools that integrated care and education, and the high quality made a significant difference to the learning outcomes of young children in general. The findings have had a positive impact on government policy, as investments in high-quality preschools reduce social exclusion and may help to break cycles of disadvantage (Sylva et al., 2010).

A comparison of five preschool curricula established similarities and differences between them (Pramling Samuelsson et al., 2006). The five curricula, Reggio Emilia, Te Whāriki, Experiential Education, High/Scope, and the Swedish National Curriculum for Preschool, were regarded as of high quality in relation to each country's culture, aiming to give children a good start in life. All programs emphasised skills and qualities that were valued as important for children to learn and develop, such as being active, reflective, and able to communicate and interact with others. Here, a global influence on quality aspects and qualities can be drawn from modern theories of learning, emphasising communication and interaction (Vygotsky, 1986). Political documents have also contributed to a change of view, in that children are seen as competent and having rights of their own (UNICEF,

1989), and in terms of recognising qualities that are necessary for the children of today to acquire in order to participate in the society of tomorrow (OECD, 2015). High quality in all of the programs is closely linked to the competence of the preschool teacher. Teachers with both theoretical and didactic knowledge are required, and who are enthusiastic and can challenge the children to learn about the world around them. The teachers should be guided by the children's interest and previous experience, and teach in a play- and learning-oriented way. This is the core of today's preschool pedagogy, as the expected approaches of the teacher are both deeply rooted in the preschool tradition and mirror the Nordic didactic approach to the teaching of young children in preschool (Eidevald & Engdahl, 2018; Sheridan et al., 2011).

This approach, integrating care, play, learning, and teaching, is related to high quality in preschool and positive outcomes for children. In this didactic approach, teachers combine children's cognitive, emotional and social learning, and view them as complementary and of equal importance (Williams & Sheridan, 2018). In Sweden, the first preschool curriculum was introduced in 1998, and has since been revised in 2006, 2010, 2015 and 2018 (The Swedish National Agency for Education, 2018). The UN Convention on the Rights of the Child (UNICEF, 1989), which has become a law in Sweden from 2020, provides a foundation for the preschool education to reflect these values and rights expressed in the convention. The aims of the revisions were to raise the pedagogical ambitions of preschool education, working in line with preschool teaching and didactics, integrating values, learning, play, and care. During the revision processes, goals related to literacy, mathematics, science, and technology were developed and strengthened, and a new area of evaluation and development of the quality of preschool education was introduced. Children's right to participate in and influence ongoing activities in preschool as well as the overall learning environment were also strengthened. The goals specify the orientation of the work of the preschool and thus the desired quality targets in the preschool. In the revision in 2018, the concept of *teaching* was introduced in the preschool curriculum (The Swedish National Agency for Education, 2018) in order to describe preschool's assignments and responsibilities. The clarification of teaching situates preschool education in a process of change, which involves preserving its tradition and distinctiveness through a social pedagogic approach, while instantaneously introducing innovation and development.

Children should be given conditions for education and culture, thinking and knowledge development, based on aspects such as intellectual, linguistic, ethical, practical, sensual and aesthetic, and play. A play-oriented, educational and contextual perspective forms the teaching foundation for the children's development, learning and well-being. The approach is designed for striving to understand children's perspectives and to give them possibilities to have influence and to act in meaningful contexts. Such a holistic approach also permeates the work and teaching of high-quality preschools (Siraj-Blatchford, 2007; Sylva et al., 2010; Williams & Sheridan, 2018).

Research on preschool teaching from a perspective of quality in Sweden

In Sweden, preschool is for children 1-5 years of age. They are often organized into toddler groups (1-3 years-old), sibling groups (1-5 years-old), and older groups (3-5 years-old). The size of these groups can vary as well as the organization of the working teams (Williams et al., 2018). Working teams is a mixture of preschool teachers with a university degree, and nursery nurses with a certificate gained after two years at upper secondary/senior high school. The present preschool teacher education was introduced in 2011 and is governed by national policy, curricula and guidelines (SFS, 1993, p. 100). It embraces both theoretical and practical education, conducted as courses at the university and preschool practical training.

From an international perspective, Swedish preschools have been ranked as having a high-quality standard with a strong focus on democracy and children's rights. In recent years, however, the OECD (2015) has reported that the quality of Swedish preschools has declined. A national perspective, based on several studies using the ECERS, highlights a significant variation in quality, giving children unequal conditions (Sheridan, 2001; Garvis, Sheridan et al., 2018). The lack of qualified teachers and an inadequate staff ratio in relation to group size are also aspects which may be related to a reduction in quality.

When the results of the Swedish studies are related to preschool teacher competence and teaching, three qualitatively different learning environments emerge, as well as different teaching approaches. They are *separating and limiting environments* (low quality), *child-centred negotiating environments* (good quality), and *challenging learning oriented*

environments (high quality) (Sheridan et al., 2009). In separating and limiting learning environments, the preschool teachers offered few reciprocal encounters and showed poor communication between teacher and child. They seldom created opportunities for children's participation and learning of different content, and seemed to believe that children learn simply by doing things and by participating in different activities. In preschools of high quality, the preschool teachers used a learning-oriented approach. They organised an environment that appeared to be rich in challenges and learning opportunities. The children participated in activities together with the preschool teachers, who taught and were engaged in their experiences and knowledge formation in relation to a shared object for learning. Their focus was on children's learning of specific objects, and they created conditions for the children to learn about the object as intended. One main difference between teachers' learning approaches in preschools of different quality was their understanding of how children learn and make meanings about different content, situations and phenomena, hence giving them unequal learning opportunities.

Thus, it is vital that teachers engage in continuous professional development of different subjects and skills. However, teachers' subject knowledge is not enough. It needs to be combined with didactic knowledge of how to encounter and support young children in their learning outcomes (Siraj et al., 2019). Research (Sheridan et al., 2009) showed that preschool quality can be enhanced if preschool teachers participate in a competence-development programme that challenges them to change their ways of thinking and understanding as well as communicating and interacting with the children.

A meta perspective on research in Nordic preschools highlights core aspects that characterise high-quality teaching: *child perspective*, *preschool teacher perspective*, and *teaching perspective* (Williams & Sheridan, 2018). The *child perspective* emphasises the importance of children's participation and agency, where children's voices and experiences are in focus for learning. The *preschool teacher perspective* emphasises the preschool teachers' competence, responsibilities and ethical approaches regarding the goal-oriented work. The teaching is about their ability to introduce children to new knowledge and ways of learning in metacognitive and meta-communicative dialogues. The *teaching perspective* frames what teaching from a holistic perspective entails in preschool. Preschool teaching is about goal-oriented processes under the guidance of preschool teachers, and can be both

planned and actions related to spontaneous situations. Teaching is described as relational, interactive and communicative, and means directing someone's attention to something, where two or more people share attention and focus on common content (a learning object) (Siraj-Blatchford, 2007). Teaching educates children from a lifelong perspective so that they can handle situations both today and tomorrow.

Method

Measures

In this study, the ECERS-3 (Harms et al., 2014) was used as a method of evaluating preschool quality, as it focuses on conditions for children's learning and development in preschool. In the ECERS, values, focus and criteria for quality are explicit, and they mirror objectives in the Swedish curriculum for preschool. The scale is intended to take on a child's perspective, and the evaluation of quality is not based on individual preschool teachers and children, but on what experiences a child has during a day in preschool. The ECERS-3 was used due to the scale's greater emphasis on cognitive development, including more language, mathematics and science than previous versions. An observation takes three hours. The ECERS-3 has 35 items organised into 6 subscales: Space and furnishings, Personal care routines, Language and literacy, Learning activities, Interactions, and Program structure. The 35 items define different levels of quality in typical situations in preschool. The items are presented as a seven-point Likert scale with four quality levels, with quality descriptors under one (inadequate), three (minimal), five (good) and seven (excellent).

The evaluation encompasses the child's overall environment for wellbeing, play, learning and development, that is, the physical, social, emotional and educational environment. It includes an evaluation of external conditions such as spaces, material resources and how they are used to support and challenge the children, as well as educational awareness, subject and didactic knowledge, and the preschool teachers' competence to create an environment that promotes children's learning and development. Inadequate and minimal

quality was scored when there was a lack of materials, toys and time to play, and if the teachers seldom or never interacted and communicated with the children while they were playing and learning. Scores for good and excellent quality was based on adequate and varied materials for the children to use, and when the teachers created playing and learning situations in which they were actively involved with the children, and communicated with them in a shared and sustainable way.

The study included consulting and following the guidelines for good research practice in social science research as formulated by The Swedish Research Council (2017); i.e., requirements for *confidentiality*, *consent*, *information*, and *autonomy*, highlighting that participation in the study was voluntary and could be ended at any time. Children were indirectly involved, as the focus of the study was on interaction and communication between preschool teachers and children, and due to the data collection being conducted in preschools. Throughout the research, children were treated with respect, which implies a perspective of both a need for protection from exploitation and the right to participate with their specific knowledge and experience (Coady, 2010).

Participants

Ten researchers collected data from 153 preschools. Twelve municipalities participated; they represented a variety of geographical areas and living conditions with varying socio-economic statuses and ethnic diversity. A convenience sample was used because of the location and access to preschools. The preschools opted in after initial contact from the researchers. Data was collected between autumn 2016 and spring 2017.

Data collection

Each preschool was observed on the basis of ECERS-3 criteria for three hours, between 09.00-12.00, that is, the time of day when the entire work team is usually present, and the activities are either planned and/or child initiated.

Statistical analyses showed an average interrater agreement of 89% of the total agreement, or a difference of one point. The alpha reliability for the data was .90. Different

types of learning groups were observed in the learning environment. Thirty-five groups had children aged one to six years (sibling groups), 13 groups had toddlers and the majority (105 groups) had children aged three to six years. Preschool teachers and child care attendants worked within the groups. Although the ECERS-3 is usually implemented with children aged three to five, given the variation in Swedish preschool age ranges, it was deemed suitable for implementation.

Data analysis

Data was analysed with descriptive statistics for the subscales and overall means using SPSS statistics. Independent variables were not collected for analysis, so there were no preconceived hypotheses for the study. Rather, the focus was a descriptive snapshot of quality in Swedish preschools.

Results

From the data, there emerged a strong variation in overall means scores around quality. Out of 153 preschools, 17 preschools scored an overall mean above 5 (considered high quality), and 14 preschools scored an overall mean below 3 (where 3 is considered the minimum requirements for the ECERS-3). Sixty-four preschools had a mean score that was between 3 and 4, while 57 preschools had a mean score that was between 4 and 5. This suggests that the majority of the sample was in the range of 3 to 5 for overall mean score. The total mean value for the 153 preschools was 3.97, ranging from 2.38 to 6.11 (see Table 1).

Variation also occurred in the subscales of the ECERS-3. High quality was reported in the subscales of *Interaction* (overall mean score of 5.25) and *Program structure* (overall mean score of 5.03), while low quality was reported in the subscales of *Learning activities* (overall mean score of 2.71) and meeting minimum requirements for *Language and literacy* (overall mean score of 3.79). In this article, we have chosen to focus on the two subscales that were the lowest overall.

Table 1. 6 ECERS-3 Subscales with mean, minimum and maximum scores (n=153)

| | Minimum | Maximum | Mean | SD |
|---------------------------|-------------|-------------|-------------|------|
| 1. Space and furnishings | 1.86 | 6.29 | 4.22 | 0.85 |
| 2. Personal care routines | 1.25 | 7.00 | 4.67 | 1.38 |
| 3. Language and literacy | 1.80 | 6.80 | 3.79 | 1.06 |
| 4. Learning activities | 1.10 | 5.36 | 2.71* | 0.80 |
| 5. Interaction | 2.00 | 7.00 | 5.25** | 1.10 |
| 6. Program structure | 1.50 | 7.00 | 5.03** | 1.24 |
| TOTAL | 2.38 | 6.11 | 3.97 | |

*Numbers below 3 are low-quality scores

** Numbers above 5 are high-quality scores

Learning activities

The subscale *Learning activities* consists of 11 items in which achieving a high-quality score required some form of teaching where the preschool teacher was actively involved with the children. Table 2 shows the individual learning activities. The scoring means that most of the participating preschools had low-quality scores on all of the items in this subscale. Some preschools did have high-quality scores in *Maths in daily events*. Low-quality scores were significant for items such as *Understanding written numbers*, *Music and movement*, *Blocks*, *Science*, *Maths*, and *Promoting acceptance of diversity*. The number of preschools within the respective quality level is shown in Table 2. The shaded cells represent 50% or more of preschools for an item. The majority of shaded cells are within the category below minimum.

The results show that preschool teachers rarely taught in relation to the items in this subscale, which is stipulated in the preschool curriculum. The quality is remarkably low on items such as *Music and movement*, *Blocks*, *Dramatic play*, *Science*, *Mathematics*, and *Promoting acceptance of diversity*. The item *Appropriate use of technology* differs from the rest of the items in the subscale, which can be explained by a large number of preschools (56) not using this kind of technology during the observations. The teachers in preschools that did use technology were often interested and engaged in it.

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Table 2. *Preschool quality numbers within the subscale Learning activities – ECERS-3 (n=153)*

| Item | 1–2 (below minimum) | 3–4 (minimum quality) | 5–6 (high quality) | 7 (very high quality) | Overall mean | SD |
|---------------------------------------|---------------------------|-----------------------------|--------------------------|-----------------------------|-----------------|------|
| 17. Fine motor | 39 (25%) | 54 (35%) | 47 (31%) | 13 (9%) | 3.79 | 1.6 |
| 18. Art | 59 (38%) | 61 (40%) | 27 (18%) | 6 (4%) | 3.04 | 1.66 |
| 19. Music and movement | 116 (76%) | 30 (19%) | 6 (4%) | 1 (1%) | 2.25 | 1.15 |
| 20. Blocks | 109 (71%) | 36 (24%) | 8 (5%) | 0 (0%) | 2.13 | 1.23 |
| 21. Dramatic play | 77 (50%) | 69 (45%) | 7 (5%) | 0 (0%) | 2.53 | 1.24 |
| 22. Nature/science | 83 (54%) | 56 (37%) | 8 (5%) | 6 (4%) | 1.83 | 1.57 |
| 23. Maths materials and activities | 82 (53%) | 67 (44%) | 3 (2%) | 1 (1%) | 2.11 | 1.23 |
| 24. Maths in daily events | 56 (37%) | 67 (44%) | 23 (15%) | 6 (4%) | 2.53 | 1.61 |
| 25. Understanding written numbers | 124 (81%) | 19 (12%) | 9 (6%) | 1 (1%) | 1.83 | 1.19 |
| 26. Promoting acceptance of diversity | 78 (25%) | 72 (47%) | 3 (2%) | 0 (0%) | 2.65 | 0.95 |
| 27. Appropriate use of technology* | 24 (25%) | 32 (33%) | 33 (34%) | 9 (8%) | 4.14 | 1.77 |

* This item is only scored if it is implemented in the preschool; otherwise, it is n/a

Low-quality scores in relation to *Music and movement* show that there were few music or movement activities, as well as little use of blocks, dramatic play, science or mathematical activities. The observations showed that there were few blocks and hardly any musical instruments available to the children. They were often stored out of reach of the children, and were never or seldom used in the classroom during the observations. Rarely were the children alerted to rhythm and rhyming.

Low-quality scores were also evaluated in relation to science. Science in the participating preschools was characterised by non-existent materials and often by ignorance and lack of interest among preschool teachers for these content areas. The lack of materials and preschool teachers' weak interest in teaching and playfully approaching different scientific phenomena was clear, and resulted in the children's limited opportunities to develop an understanding of scientific concepts. Likewise, in the case of mathematics, the lack of material, use of numbers and adult engagement and awareness were characteristics of a lower-quality score. During the observations, the preschool teachers used mathematical

concepts and numbers on a few occasions in relation to daily events. Teachers' focus on teaching children to understand written numbers was more or less non-existent.

In common for low-quality scores with regard to these items was the lack of access to materials, toys and time to play or complete the activity. The adults were seldom engaged with the children while they played, drew, explored, etc. They rarely or never used these kinds of situations and activities for teaching, and the communication was often inadequate and characterised by 'yes' and 'no' questions.

A few preschools were evaluated as having high-quality scores in relation to items such as art, fine motor and maths in daily events. In these preschools, there were sufficient and varied materials for the children to use, and the teachers participated in their activities or tried to make the activity continue and develop. For example, the teachers used letters and numbers in the children's play and activities when it filled a function and was meaningful for the children. Relevant concepts were often used in relation to science and mathematics. There was a variety of natural science materials, preschool teachers initiated and directed activities where the children could sort, measure and weigh things, and the teachers explained concepts to increase the children's understanding of different scientific phenomena. In relation to mathematics, the material was plentiful and varied, and the preschool teachers took the opportunity to pay attention to the children's engagement with maths in their daily lives, as well as encouraging the children's own initiatives and questions. The preschool teachers also initiated and directed activities involving mathematics. They encouraged the children to use relevant mathematical concepts and solve complex mathematical tasks in a way that interested and challenged the children. During the observations, such work and approaches only occurred in a few preschools.

Language and literacy

The subscale *Language and literacy* consists of five items and has a total mean score of 3.79. The lowest mean score is 1.8 and the highest is 6.8 for this subscale. Some preschools had a high-quality score on the five items, especially on the items *Helping children expand vocabulary* and *Encouraging children to use language*, whereas several of the participating preschools had low- to good-quality scores. In this subscale, there is a notable

differentiation between the five items. Two of the items had scores of a higher average quality and focused on the spoken language. Three items had scores of a lower quality: *Staff use of books with children* (average 2.9), *Encouraging children's use of books* (average 3.5) and *Becoming familiar with print* (average 3.3). The number of preschools within each respective quality level is shown in Table 3.

Table 3. Preschool quality numbers within the subscale Language and literacy – ECERS-3 ($n=153$)

| Item | 1–2 (below minimum) | 3–4 (minimum) | 5–6 (high quality) | 7 (very high quality) | SD |
|---|---------------------------|------------------|--------------------------|-----------------------------|------|
| 12. Helping children expand vocabulary | 20 (13%) | 65 (42%) | 32 (21%) | 36 (24%) | 1.77 |
| 13. Encouraging children to use language | 9 (6%) | 76 (50%) | 28 (18%) | 40 (40%) | 1.60 |
| 14. Staff use of books with children | 80 (52%) | 27 (18%) | 46 (30%) | 0 (0%) | 2.00 |
| 15. Encouraging children's use of books | 46 (30%) | 82 (54%) | 18 (12%) | 7 (4%) | 1.40 |
| 16. Becoming familiar with print | 52 (34%) | 75 (49%) | 22 (14%) | 4 (3%) | 1.39 |

The evaluations showed that books of various kinds were found at all of the observed preschools. By contrast, they varied in number and condition. Primarily, fact books were missing in low-quality preschools. The evaluations showed consistently low-quality scores on items related to the written language.

In low-quality preschools, there were few or no occasions when the children were encouraged to use books, neither were books used in preschool teaching. Reading situations were often uncomfortable and uninspiring for the children. If and when the written language was in focus, it happened in a way that appeared to be incomprehensible and uninteresting for the children. Letters were rarely pointed out, nor were children given the opportunity to play with or write words. Children were never observed writing, either individually or with the help of adults, in relation to drawings, stories or other activities related to the written language. The written word was not used to guide and instruct the children in situations such as hand washing or rules for certain games. During the observations, few or no opportunities were given for the children to play with letters and languages.

In high-quality preschools, there was variety of books where several were related to ongoing themes and projects. Books were read with a focus on children's interests, to answer their questions and to stimulate language development and learning of concepts, and the reading was done in a way that engaged them. Children were also encouraged to read and look in books throughout the day. Letters, pictures and current events were related to each other. The written language was used in such a way that it became both functional and meaningful for the children.

Discussion

The aim of this article was to highlight teaching competence as one critical aspect of Swedish preschool quality. The results show that the teachers' competence, or lack of competence to teach, clearly influenced the preschool quality in different ways. Therefore, the competence to teach is a point of intersection for the quality of preschools and conditions created for children's play, learning and development. The results highlight stable and distinct patterns of variation in quality related to different items and subscales of the ECERS-3; the results also highlight that there was limited teaching that occurred during the observations. The two subscales with the lowest-quality scores, *Language and literacy* and *Learning activities*, were chosen to explore teaching in this article, as both subscales embrace items and criteria that are dependent on teaching to be evaluated as high quality.

Based on the theoretical framework (Bronfenbrenner, 1979, 1986; Bronfenbrenner & Morris, 2006; Vygotsky, 1986), a number of suggestions could be given for such low scores, as the focus was directed towards relations between policy, curriculum goals and teachers' competence to teach in relation to conditions created for children's wellbeing, development and learning in preschool. Together, these theoretical perspectives highlight how intentions and circumstances between and within different systems and contexts affect preschool teaching, and conditions for children's learning in preschool.

Low-quality scores are, for example, to be found in items related to science, written numbers and literacy, which can be explained by the novelty of these subject areas in the Swedish preschool curriculum. The history of a social pedagogic approach is another

explanation, as the foci from this perspective were on children's play and working with the child's social development. This approach is still dominant within the practices of a number of Swedish preschools (Williams et al., 2014). Preschool staff may also wish to reject formal teaching in subject areas as a form of protest against "schoolification". However, from this perspective, it is even more surprising that low-quality scores were also found in relation to areas such as book reading, dramatic play and arts. These are areas that are traditionally regarded as the core of early childhood pedagogy.

The focus on 'teaching' is also new within Swedish preschools. It is only in the most recent preschool curriculum that focus has been shifted towards teaching. Lindensjö and Lundgren (1986) differentiated between an arena for formulation (the macro level), in which curricula are formulated, and an arena for realisation (the micro level), in which the goals are interpreted and concretised in practice, highlighting that it takes both time and competence to concretise goals into preschool practice. Teachers' attitudes and beliefs are also decisive. The process of realisation is not only dependent on the teachers' competence and understanding of the goals and the preschool assignment, but also on their beliefs and views regarding children, knowledge and learning, which will influence the conditions created for learning in preschool (Moss, 2004).

Even if teaching is part of the revised preschool curriculum (The Swedish National Agency for Education, 2018), the percentage of educated preschool teachers across Sweden has declined, indicating the possibility that preschool staff in the study did not have the knowledge or ability to implement effective learning activities and engage in teaching moments within the learning domains. For example, it is possible that the staff did not have the required scientific knowledge (subject and content knowledge) to engage in scientific investigations with the children. If this was the case, it is important that more focus is given to the upskilling of preschool staff through professional learning activities and education (Nasiopoulou, 2020; Siraj et al., 2019). Given a greater focus on, for example, science teaching in the Swedish preschool curriculum, there appears to be a strong disconnect between the intentions in the curriculum and what occurs in preschools (Larsson, 2016).

The knowledge gained through this study provides additional evidence that some aspects are more critical than others in terms of determining preschool quality and for policy decisions. Studies show the complexity associated with the interpretation and

implementation of educational reforms, such as the concept of teaching in preschool. It takes time for professionals to adapt to, and take responsibility for, reformed educational activities in order to improve quality (Eriksson et al., 2018).

To bridge the gap, critical factors of preschool quality need to be in focus for preschool teachers' education and competence development. Based on our research, we identify the following areas in need of competence development are: subject and didactic knowledge, competence in relating to children in dialogue, creating sustainable shared thinking, developing child-focused strategies, clarifying and communicating an object of knowledge, challenging children's thinking by integrating play, care, and learning in teaching. It is primarily in interaction and communication, which are characterised by high sensitivity, responsiveness and dialogue about different content, that is predicting the development of children's linguistic, cognitive, and social abilities in the long term. These factors have also been identified in other research (Siraj et al., 2019; Sylva et al., 2010). Preschools and preschool teacher education need to focus on these areas and didactic approaches, and on how preschool teachers can work with them in a thematic-, play- and learning-oriented way. Vital areas for future research are in-depth studies focusing on teaching regarding the youngest children (1-3 years of age) in preschool, since the quality of teaching differs depending on learning activities and the age of children.

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