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Early Language and Literacy Development in the Finnish Context

Marja-Kristiina Lerkkanen

Introduction

It is noticed that reading ability is affected by a number of factors exerting an influence long before school entrance. Previous studies have well documented the language basis of literacy development (Catts et al., 1999). Mediating factors in this regard originate both from within the child (e.g. cognitive skills and motivation) and from within the child's environment (e.g. home, preschool and printed environment such as the texts, books and stories they are exposed to). While the effect of home environment and cognitive predictors of early reading skills and reading difficulties at first school years have been widely studied, much less attention has been given to following up very young children's emerging literacy skill development and the effect of classroom experiences at early childhood education. There is also contradictory finding concerning the influence of various environmental factors on literacy development in different age and longitudinally. In sum, there is still need to investigate the combination and role of different factors affecting on children's early language and literacy development.

Longitudinal studies that start early on provide an opportunity to investigate developmental patterns and to identify factors that affect the early development of language and literacy skills and the relationships between these skills. Previous studies have shown that the differences between children are already evident at a very early age, and they enter school with different levels of knowledge and skills pertaining to literacy (e.g. Lyytinen et al., 2006). Therefore, only longitudinal follow-ups can reveal whether there exist different trajectories in children's literacy development.

It has also been reported that the regularity and transparency of the correspondence between phonology and orthography significantly affect reading in the early phases of literacy acquisition. Several cross-linguistic studies have shown that reading acquisition develops more rapidly in languages with a transparent orthography than in languages with an opaque orthography. Although there is number of studies on cognitive factors predicting reading skills development and dyslexia in transparent languages as well, there is still lack of studies examining the longitudinal effect of primary contexts in early childhood, namely home, preschool and kindergarten on the development of literacy skills in transparent languages.

This chapter will present some key findings from four longitudinal studies on the early language and literacy development of young children in the highly transparent Finnish language context. These examples will demonstrate language and emergent literacy skills development, and the role of the home learning environment (HLE) and the quality of

kindergarten classroom teacher-child interactions on their emergent literacy skills. An especially relevant and internationally well-known example is the Jyväskylä Longitudinal Study of Dyslexia (JLD; Lyytinen et al., 2006), which followed 200 children from birth to adulthood, half of whom had a familial risk for dyslexia. The purpose of the study was to follow language and literacy development and to identify early predictors of dyslexia. The three other studies were not primarily early literacy studies, but they collected a significant amount of information on children's developmental trajectories in language and emergent literacy development, and the role of the environmental factors in these processes. The Interaction, Development and Learning study (Lerikkanen, Salminen, & Pakarinen, 2017) focused on 230 toddlers' language and emergent literacy skills development, and how the quality of preschool (117 teachers) and HLE (208 parents) were associated with this development. The third example is from Teacher Stress and Interaction Study (TESSI; Lerikkanen & Pakarinen, 2016-2018), which focused on learning interactions at Kindergarten and Grade 1 between teachers (n = 54), children (n = 536) and home (n = 363). Finally, the First Steps follow-up study (Lerikkanen et al., 2006-2016) focused on 1,880 children's reading skills development, and the effect of home and classroom practices in kindergarten and school on the development of literacy skills and related motivation.

The present chapter focusses on children in the early years of their language development before school age and during their first years in elementary school. The goal of Finnish preschool and kindergarten education for 6-year-old is to arouse children's interest in reading and to support emergent literacy skills, instead of a systematic instruction of decoding. In Grade 1, reading and spelling are taught simultaneously, with an emphasis on the systematic use of phonics and grapheme-phoneme connections, while later, the focus is more on reading fluency and comprehension (Lerikkanen, 2007).

The Finnish language is characterised by an exceptionally regular grapheme-to-phoneme correspondence, making learning to read a relatively rapid process (Lerikkanen, Rasku-Puttonen, Aunola, & Nurmi, 2004). In Finnish, every word can be read by relying on this highly bidirectionally consistent phonological strategy. Therefore, learning to read Finnish or other highly transparent orthographies, i.e. Greek, Italian or Spanish, has been shown to progress more rapidly than learning to read more orthographically opaque languages, such as English or French (Seymour, Aro, & Erskine, 2003). However, strong empirical evidence has documented the contribution of the same early emergent skills—letter knowledge, phonological awareness, rapid naming and vocabulary—to reading acquisition across languages (e.g. Georgiou, Parrila, & Papadopoulos, 2008). Due to these features of the Finnish language, around 30% of children learn to decode before school entrance (Soodla et al., 2015), and the vast majority of the remainder learn to read during the first semester of Grade 1 (Lerikkanen et al., 2004). However, even a highly consistent orthography does not guarantee efficient reading acquisition for all children. Reading difficulties (RD) are typically identified for approximately 5%–20% of children in either reading fluency or comprehension, depending on the criteria. For these reasons, the Finnish language context is interesting when we try to understand how children learn to read and how the environment will effect skills development in different language contexts.

Early language development and emergent literacy skills

The early development of spoken language can play a substantial role in school-age oral and written language performance. Typically, children speak their first words at around 12 months and begin to put words together prior to their second birthday (Zubrick, Taylor, Rice, &

Slegers, 2007). Children who do not achieve the appropriate language skills during the first years of life are shown to be at risk for later difficulties in receptive and expressive language skills as well as later on in literacy skills at school (Lyytinen, Eklund, & Lyytinen, 2005).

Strong receptive and expressive language skills appear to underlie the acquisition of more specific skills necessary for decoding and comprehending texts (Lyytinen et al., 2005). A number of longitudinal studies have focused on these issues in particular. For example, the JLD follow-up (Lyytinen et al., 2006) showed that early language and literacy development in the Finnish language context is affected by both receptive and expressive language skills, phonological awareness, letter knowledge, naming speed, inflectional morphology skills and memory (Torppa, Lyytinen, Erskine, Eklund, & Lyytinen, 2010). In addition, one strong predictor, which may slow down the later automatising of word recognition, seems to be early weaknesses in language development, and especially imprecise perception of speech and temporal speech cues in infancy. Late talkers provide evidence for persistent delays in vocabulary, oral reading, decoding, and spelling (e.g. Lyytinen et al., 2005; Rescorla, 2005). Moreover, slow language development has been associated with weaknesses in vocabulary and literacy-related skills, particularly reading comprehension, well into adolescence (Rescorla, 2005), although there is heterogeneity among late talkers (Rescorla, 2009). Thus, there is support for the importance of children's early language development, which provides a foundation for the development of language and literacy skills.

The risk for later reading difficulties runs in families with a history of dyslexia (difficulties with accurate and/or fluent reading and poor spelling). In transparent orthographies, the main characteristic of dyslexia has been shown to be slow reading (e.g., Torppa et al., 2016). For at-risk children the risk for dyslexia is four- to ten-fold depending on the criteria used (Snowling, Callagher, & Frith, 2003). However, based on Finnish JLD data, Eklund (2017) found that although the associations between early cognitive skills and reading literacy skills among at-risk children were strong, they did not form a single homogenous group of readers at school age. Half of at-risk children did not show any clear reading difficulties during primary and secondary school and reading disability in Grade 2 did not necessarily lead to similar status in Grade 8. For these reasons, it is highly important for the teacher to follow-up the literacy development of each individual child in the classroom.

Besides language skills, the mediating factors in literacy skills development originate from the child's environment, e.g. social interactions, home environment, preschool, and printed materials. Print awareness is a child's early recognition of print in the environment and understanding that written language carries meaning. Print awareness in emergent literacy refers to a child's growing recognition of conventions and characteristics of a written language, for example, that print in the form of words corresponds to speech (Justice & Ezell, 2001). The foundation of subsequent literacy learning builds upon this knowledge. Therefore, emergent literacy (Whitehurst & Lonigan, 2003) does not only include literacy-related pre-skills, behaviours, knowledge and attitudes, which are developmental precursors to reading and writing; the scope of inquiry has expanded to also include the environments that support such development.

Based on Whitehurst and Lonigan (2003), emergent literacy consists of two groups of skills: outside-in skills and inside-out skills. Outside-in skills refer to the sources of information outside the printed word that directly support children's understanding of the meaning of the printed word, such as vocabulary, conceptual knowledge and story schemata. Inside-out skills refer to the information within the printed word that relates to the ability to translate print into

sounds and sounds into print, e.g. phonological awareness and letter knowledge. A number of studies have shown that the strongest early predictors of reading and spelling development are phonological awareness, letter knowledge, and rapid automatized naming (Kirby, Georgiou, Martinussen, & Parrila, 2010; Torppa et al., 2013). Moreover, vocabulary, listening comprehension and fluency in reading have been shown to predict the development of reading comprehension (de Jong & van der Leij, 2002; Torppa et al., 2016).

Research has reported that girls outperform boys in most language and literacy tasks (Halpern & LaMay, 2000; Logan & Johnson, 2009). For example, girls have been found to outperform boys in both the acquisition and use of verbal information (Halpern & LaMay, 2000) and to score higher on reading tasks (Logan & Johnson, 2009). Boys are also overrepresented at the lower end of the distribution of dyslexia and delayed speech (Halpern & LaMay, 2000; Quinn & Wagner, 2013). However, gender differences seem to be somewhat greater in adolescents' reading skills than in younger children (Torppa, Eklund, Sulkunen, Niemi, & Ahonen, 2018) and not all studies demonstrate clear or practically relevant gender-related differences in early reading skills or early motivation for reading (Lerkkanen et al., 2012; Lerkkanen et al., 2016).

The effect of the home learning environment (HLE)

Children's home environments play a crucial role in both their language and literacy development. It has been shown that children with responsive and sensitive mothers who create predictable and enjoyable interactions have stronger language skills during their infant and preschool years (Landry, Smith, Swank, & Miller-Loncar, 2000). This further predicts children's decoding and reading comprehension competency at primary school (Belsky et al., 2007).

According to the home literacy model by Sénéchal and LeFevre (2002), home-based parental involvement can be informal or formal literacy activities. These activities are distinct types of literacy experiences, which affect the child's literacy development differently. Informal reading-related activities are associated with the environment that parents create at home, for instance, the number of children's books or the amount of reading to the child. Children reared in homes with more stimulating books and other objects show faster acquisition of language skills. In turn, formal reading-related activities refer to exposing a child to print per se, such as teaching the child letters or decoding. Because children learn literacy through their interactions with others, their literacy interactions with other children and their parents are essential for enhancing the impact of home literacy activities.

In the Interaction, Development and Learning study (Lerkkanen, Salminen, & Pakarinen, 2017), we were interested in how, for example, emergent literacy skills develop over a year, the extent of variations between children in the development of these skills, and the contribution of HLE to emergent literacy skills. The Finnish toddlers were examined twice on their vocabulary (PPVT-R short version, max 30 points; Dunn & Dunn, 1981), print knowledge (Test of Preschool Early Literacy, max 12 points; TOPEL; Lonigan, Wagner, Torgesen, & Rashotte, 2007) and letter knowledge (Viivi letter naming test, max 29 letters) during one year in preschool. Parents were asked to report the number of children's books in their homes and how often their child engaged in different informal literacy activities at home.

First, it was found that all three emergent literacy skills developed during the year from fall to spring: vocabulary (fall $M = 9.57$, $SD = 3.00$; spring $M = 11.57$, $SD = 3.31$), print knowledge ($M = 3.19$, $SD = 2.11$; $M = 3.72$, $SD = 2.27$) and letter knowledge ($M = 0.89$, $SD = 3.61$; $M =$

1.51, SD = 4.55). Second, when taking into account children’s prior print knowledge at preschool entry (fall), girls were found to make somewhat more progress by the end of the year (spring) in their print knowledge skills than boys (ES = .02). At the same time, no gender differences were found in the progress of vocabulary or letter knowledge, although girls’ vocabulary was at a somewhat higher level than that of boys throughout the year. An interesting result was that there were five children out of 230 who could name more than 20 letters by the age of 3.

Comparing the data of 2-3 years old to the TESSI data of 6-year-olds (Lerikkanen & Pakarinen, 2016-2018) it was found that most of the Finnish parents engaged their child in informal reading-related activities several times a week (see Figure 22.1). For example, 84.1% of parents reported reading bedtime stories to their toddler and 88.4% to their 6-year-old, and half of them did so every day. Slightly more mothers than fathers read aloud to their children on a daily basis. The interesting finding was that parents reported 6-year-old children already watching television, using mobile applications and playing computer games more often than reading a book. Half of the families had more than 50 children’s books at home, and 73.1% of parents visited the library with their toddler and 96.5% of parents with their 6-year-old at least occasionally. In sum, although these examples demonstrates the positive attitude and high interest towards reading in Finnish families, these are also interesting findings demonstrating some differences between children’s emergent literacy skills and HLE at the very early age of 2–3 years old and how the literacy activities at homes rapidly change when children grow.

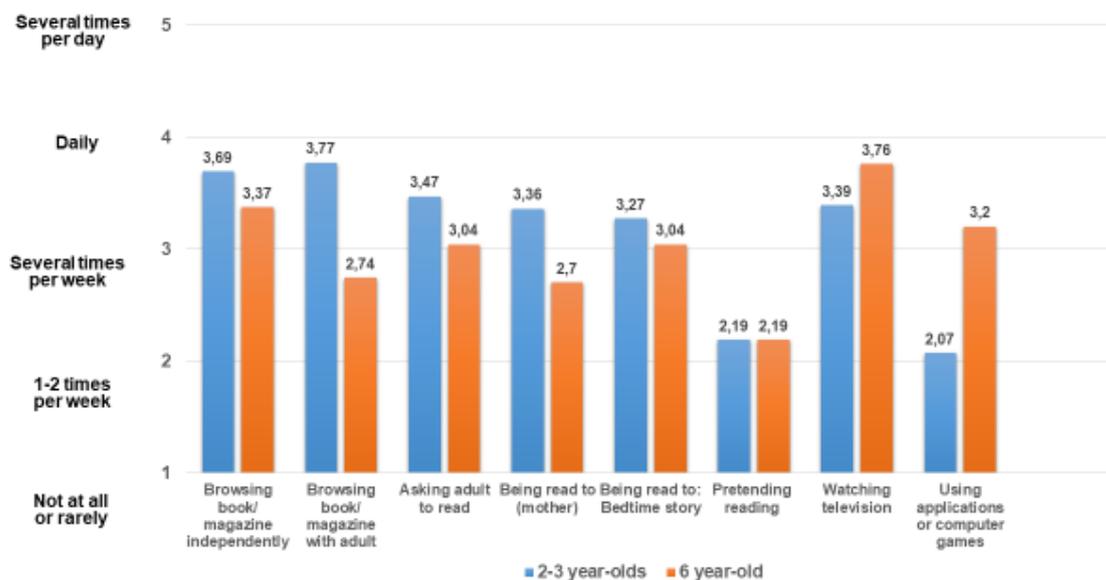


Figure 22.1 Frequency of exposure of 2–3 year-olds and 6-year-old children to different literacy activities at home (1 = not at all, 2 = 1–2 times per week, 3 = several times per week, 4 = daily, and 5 = several times per day)

While informal activities predict the child’s language development, formal activities promote the acquisition of emergent literacy skills. Previous research among kindergarten children and primary school children has shown that shared reading predicts children’s oral language skills, such as their vocabulary and syntactic skills (Sénéchal & LeFevre, 2002; Torppa, Poikkeus,

Laakso, Eklund, & Lyytinen, 2006; Whitehurst & Lonigan, 2003). Shared reading seems to expose children to vocabulary through positive interactions with their parents, while books provide children with learning experiences that demonstrate written language, syntax and semantics. For example, Hood and colleagues (2008) found that parents' reading practices, including the number of children's books at home, recognition of children's book titles, and the frequency of reading to their children each week, were related to the children's receptive vocabulary in the first school year.

Previous studies on the role of formal activities, such as teaching reading, in the development of children's emergent literacy skills have yielded contradictory results (Pomerantz, Moorman, & Litwack, 2007). The findings on this relationship seem to differ depending on the child's age and whether the measurement was conducted before or after school entry. The younger the child is, the more influential the mother's formal literacy activities at home seem to be. For example, in the Finnish JLD study, Torppa et al. (2006) found that parental teaching of letter names at the age of 4.5 years predicted how a child's knowledge of letters developed later on at the age of 6.

The parental teaching of reading-related skills at kindergarten age is related to good emergent literacy skills, including letter knowledge (Manolitsis, Georgiou, Stephenson, & Parrila, 2009) and decoding skills (Sénéchal & LeFevre, 2002). For example, Sénéchal and LeFevre (2002) demonstrated that the more parents involved themselves in reading-related activities with their 5-year-old children, the higher were their levels of reading skills acquisition by Grade 3. An interesting finding from the First Steps study (Silinskas et al., 2010) showed that a child's good emergent literacy skills at the beginning of the kindergarten year at age 6 increased the maternal teaching of reading the child subsequently received, and further, the mother's teaching of reading predicted the development of reading skills during kindergarten year. This demonstrated children's evocative effect on their parents. If a child is interested in reading-related activities, then he or she probably invites the parent to share these activities with him or her.

However, after the transition from kindergarten to Grade 1, the results concerning the role of parental home-based involvement in children's reading skills are less clear. Some studies have shown that parental home-based teaching activities have substantial effects on the development of children's more advanced reading skills (Sénéchal & LeFevre, 2002; Stephenson, Parrila, Georgiou, & Kirby, 2008). In contrast, other studies have failed to show a positive or even any association between parental reading-related teaching at home and children's reading skills at school age. For instance, Silinskas et al. (2012) showed that it was children's poor reading that activated more frequent parents' teaching of reading and more frequent shared reading at home in the first grade. This demonstrated that parents reacted to their child's poor reading skills and tried to teach reading also at home, but unfortunately, this is not always beneficial for the child. Further, Silinskas et al. (2013) showed that the frequency of maternal teaching made a differential contribution to children's subsequent reading skills, depending on the skill level of the child and the teaching style of the parent. While maternal teaching had no association with good readers' reading skills, differences were found in the effects of maternal teaching among poor readers. The subgroup of poor readers for whom maternal teaching positively contributed to their reading skills was characterised by high levels of controlling behaviour by their mothers but simultaneous positive emotional support in homework situations.

Several other family-related factors have been shown to contribute to children's academic outcomes. For example, the importance of socioeconomic status (SES) background factors in

predicting a child's skills development has been demonstrated in many studies. This research has consistently shown that children from families with a low SES had a lower level of emergent literacy skills in terms of print knowledge, alphabet knowledge, word recognition and phonological awareness than children from families with a high SES (e.g. Hood, Conlon, & Andrews, 2008). Previous research has also indicated that parents' educational level has even a stronger effect on their child's reading performance than SES do (e.g. Sylva, Melhuish, Sammons, Siraj-Blatchford, & Taggart, 2010). The results might suggest that parents' education has an influence on the quality of the HLE, experiences, parental informal and formal activities, and investment in resources that promote the child's development.

In conclusion, there is extensive evidence showing that parents' sensitivity and responsiveness, quality of language interactions and informal reading-related activities, such as shared reading, play an important role in young children's emergent literacy skills. There is little to no evidence that these factors operate differently for low- and middle-income families or for families from diverse ethnic backgrounds (see Burchinal & Forestieri, 2011), although differences between families in the quality of the HLE do exist.

The role of teacher-child interactions

In addition to the importance and influence of the home environment on children's emergent literacy development, another important environment is early childhood education (ECE) and the kindergarten classroom where the language-rich environment and the role of the adult/teacher introducing the material to the child is essential. Previous studies have shown that the adult-child relationship in preschool/kindergarten can support emergent literacy development at least in two ways. First, they function as a support mechanism to the development of basic skills needed for literacy growth by raising the child's interest towards the printed environment, especially books. The second function is instructional, whereby the teacher can help the child to focus explicitly on letter names or letter-sound correspondence, rhymes or written words, such as during storybook reading, language games and other activities. All these practices promote growth in code-breaking skills needed in reading and writing.

However, the curriculum for ECE or attending kindergarten education do not necessarily guarantee high-quality classroom experiences. The most important aspects of quality ECE are stimulating and supportive interactions between teachers and children (Mashburn et al., 2008). For example, Connor and colleagues (2005) demonstrated how teachers' warmth and sensitivity towards children's individual needs were related to their vocabulary and decoding at the end of Grade 1. It is also well known that children's early educational experiences have long-lasting effects on their academic achievement at school (Hamre & Pianta, 2001). For example, the large-scale longitudinal EPPE study (Sylva et al., 2010) conducted in the UK showed that the quality of interactions between the teacher and children in preschool were particularly important: children showed better social, behavioural and academic outcomes at ages 6 and 7, when their preschool teachers were warm and responsive to the individual needs of the child.

According to the Teaching through Interactions (TTI; Hamre et al., 2013) framework, the quality of teacher-child interactions is the central driver for children's learning and motivation. Pianta, LaParo and Hamre (2008) have developed an observational instrument, the Classroom Assessment Scoring System (CLASS), which focuses on the patterns of teacher-child

interactions in the classroom. It has operationalised classroom interactions in several specific observable dimensions involving emotional, organisational and instructional features.

The idea of *emotional support* is based on attachment theory (Bowlby, 1982), which posits that, if children feel emotionally secure with their teachers, they are better able to invest their attention and engagement in learning. Emotionally supportive teachers are warm, sensitive and responsive to children's needs, and they also provide children with appropriate levels of autonomy and a supportive climate in the classroom. Studies have shown that children who have responsive preschool teachers make the most gains in early language and literacy skills (Curby, Rimm-Kaufman, & Ponitz, 2009).

Classroom organisation refers to the effective setting of rules and routines, as well as the teacher's management of time and attention. These will support young children's ability to control impulses and, thus, regulate their behaviour in the classroom, which contributes to how they benefit from the learning environment with respect to language and literacy outcomes (Morrison, Ponitz, & McClelland, 2010). Besides providing a structure for learning, teachers with high-quality classroom organisation also promote students' motivation and provide them with inherently interesting activities.

Instructional support has been found to contribute to children's emergent literacy skills (Mashburn et al., 2008) and their growth in word reading (Curby et al., 2009). Instructional support focuses on the quality of feedback, and the teacher's ability to present content knowledge and new concepts in meaningful contexts, and to support children's vocabulary and language skills. It has been shown, for example, that teachers with high-quality instructional support provide children with rich learning opportunities by scaffolding, extending and giving consistent, process-oriented feedback (Pianta et al., 2008).

The impact of kindergarten quality on literacy development

The studies reported next are part of the longitudinal First Steps study (Lerikkanen et al., 2006–2016), which examines student learning and motivation in the interpersonal contexts of kindergarten, comprehensive school and the home environment in Finland. The population-based sample of children from four municipalities involved 1,880 children with their parents and teachers. The First Steps study comprises a rich database of assessments of students' academic performance, motivation, social skills and wellbeing on a yearly basis. At each measurement point, parents and teachers filled in questionnaires concerning their parenting styles, HLE and background information. A subsample of the kindergarten teachers (n = 49) also participated in classroom observations. Observations were conducted on two separate days. The quality of teacher-child interactions was rated by trained investigators using the CLASS Pre-K (Pianta et al., 2008). Also, the extent of child-centred and teacher-directed teaching practices during a school day were measured by the Early Childhood Classroom Observation Measure (ECCOM; Stipek & Byler, 2004).

The study by Pakarinen et al. (2010) investigated the role of the quality of teacher-student interactions and teacher stress in children's motivation and phonological skills in kindergarten classrooms. The results indicated that the higher the quality of classroom organisation, the higher the children's motivation to learn in the particular classroom. The quality of the teacher's emotional and instructional support also correlated with the children's motivation, and the children's motivation correlated with phonological skills. These results suggest that teachers who set clear rules and provide inherently interesting tasks in the classroom promote

children's motivation and engagement in learning activities as early as kindergarten. The results also suggest that children's motivation is an important mediator of the impact of teacher-related variables on children's pre-reading skills. This result is in line with Guay, Boggiano, and Vallerand (2001), indicating that teachers' provision of both autonomy support and an optimal structure promote children's motivation.

The study by Pakarinen et al. (2010) also indicated that in addition to teachers' instructional practices, their pedagogical wellbeing is important in promoting children's motivation. Teachers who exhibit a greater amount of enthusiasm are effective in promoting students' interest, excitement and curiosity (Patrick, Hisley, Kempler, & College, 2000), while emotional exhaustion may lead to avoiding interactions with students and lowered sensitivity. Therefore, teachers' wellbeing may affect children's academic skills by promoting children's enthusiasm and engagement in learning.

The quality of early interactions have also longitudinal effects on later literacy skill development. For example, Pakarinen et al. (2017) showed further that high-quality teacher-child interactions in kindergarten were positively associated with children's reading skills four years later in Grade 4. The results emphasise the importance of strong emotional, organisational and instructional support in kindergarten for the further development of reading skills. In addition, Silinskas and colleagues (2017) showed that emotional support and classroom organisation in kindergarten were positively associated with the development of children's reading skills across Grade 1, especially for those prone to reading difficulties. They also showed that frequent literacy activities in kindergarten were positively related to children's reading skills shortly after entering Grade 1. All the positive longitudinal associations were stronger for those children seen to be at risk of developing reading difficulties than for those not at risk.

Also, the quality of teaching practices have an effect on child outcomes. For example, the study by Lerkkanen et al. (2012) examined the extent to which teaching practices observed in kindergarten classrooms contributed to children's subsequent interest in reading. The results showed that teaching practices make a difference; in the kindergarten classrooms where teachers predominantly applied child-centred teaching practices, the children showed more interest in reading than in classrooms characterised by predominantly teacher-directed teaching practices. This result suggests that child-centred practices promote the positive development of children's interest in reading.

Also, Stipek, Feiler, Daniels, and Milburn (1995) found that children were more highly motivated in child-centred programs compared to children in more teacher-directed pre-K classrooms. When teachers allowed children a lot of freedom to choose tasks and complete them without the pressure of getting the right answer, the children selected more challenging tasks, were less dependent on the teacher, and showed more pride in their performance. The results by Lerkkanen et al. (2012) and Stipek et al. (1995) are in accordance with motivation theories, which emphasise the importance of encouraging individual choices and creating opportunities to feel competent (Deci & Ryan, 1985). Children seem to want to read more often when they are able to choose what to read, have the opportunity to interact with others, can discuss what they have read and feel successful about reading.

The results of Lerkkanen et al. (2016) emphasise the importance of child-centred teacher practices in promoting children's academic skills development also after kindergarten in elementary school. They found that a high level of child-centred teaching practices predicted

children's reading skills development during the first school year, and further, that child-centred teaching practices were equally beneficial for the academic skills development of children with varying initial skill levels.

In child-centred classrooms, the teacher's support can facilitate children's learning by providing them with both guidance and opportunities to direct their own exploration of academic topics. Therefore, child-centred practices are characterised by a shared responsibility for learning between the teacher and the students, as well as the teacher's active and sensitive scaffolding for the children's learning. It has also been recently suggested (Tang et al., 2017) that it is essential to strike a balance between constructivist, child-centred literacy practices and didactic, teacher-directed practices to positively affect both children's literacy learning and motivation. In such balanced literacy practices, teachers simultaneously use active constructive instruction and scaffolding of children's basic reading and writing skills, according to each child's individual needs, without engaging them too much in repetitious basic skills tasks.

The study by Lerkkanen et al. (2010) examined the literacy and motivational development of three groups of children from kindergarten to Grade 2: a group of children at risk for RD (n = 162), a group of precocious readers who had learned to decode in kindergarten (n = 460), and a group of children in the follow-up (n = 1,205). In addition, within-group gender differences were analysed, and the three groups were compared in terms of children's self-rated motivation, parental achievement expectations and ability beliefs concerning their child, and the amount of parental teaching of reading at home. The results showed that the groups differed in their pre-reading skills, reading achievement and their motivation across all time points. Differences were found between the groups, indicating that parents' expectations and beliefs were most positive among the group of precocious readers, and lowest among the group of children at risk for RD, with the latter group of children also receiving the least amount of parental teaching of reading at home. Some group differences in literacy skills and motivation favoring girls were also found.

Although risk for RD determined by familial background for dyslexia or by deficits in early language development result in poor reading skills (e.g., Lyytinen et al., 2005; Snowling et al., 2003), not all of these at-risk children end up with RD. Rather than risk factors alone the transactional theory of risk and adaptation (Rutter, 2007) and protective models of resilience (Fergus & Zimmerman, 2005) have suggested that child development is determined by the interplay between risk and protective factors. Children lacking positive and supportive relationships with adults and peers are often at risk for poor academic outcomes (e.g., Ladd, Birch, & Buhs, 1999), whereas students with positive relationships with teachers and peers in the early school years are more likely to show better achievement (Furrer & Skinner, 2003).

As a part of the First Steps study we followed children at risk for RD (based on poor phonological awareness and letter knowledge) from Kindergarten until grade 4. The results showed that environmental protective factors, namely, high levels of peer acceptance, positive teacher affect and active parent-teacher partnership, uniquely predicted students' improved reading fluency in grade 4, after controlling for RD risk, nonverbal ability, level of parental education, and gender (Kiuru et al., 2013). However, risk for RD predicted a smaller number of protective factors in child's learning environment during early school years, which then predicted lower subsequent reading skills. These findings suggest that child characteristics (in this case poor reading skills) and classroom relationships form transactional patterns that are likely to accumulate across time (Sameroff, 2009). While students at risk for RD need to invest

a high effort in practicing reading skills, the results indicate that they need strong support from their environment to obtain good learning results. Unfortunately, this is not always the case.

Conclusions and Implications for ECE

Early language and literacy skills predict reading success at school. Emergent literacy skills involve many processes and functions that begin at birth, of which the activation and continued stimulation is dependent on adult-child interactions. It is evident that young children show more rapid development of language and emergent literacy skills when they experience sensitive and cognitively stimulating home, preschool and kindergarten environments. It is also evident that interactions, parental sensitivity and the informal HLE can predict language and emergent literacy skills.

Educational interventions suggest that parents of kindergarten-age and Grade 1 children can be effective tutors for literacy learning by giving them appropriate materials and guidelines (see meta-analysis by Sénéchal & Yong, 2008). However, the research also suggests that sensitivity from the parents is needed, so that they do not push the child too hard or too early. Silinskas et al. (2013) showed that in cases where maternal teaching positively contributed to the child's reading skills development, it was characterised by high levels of controlling behaviour but simultaneous positive emotional support in homework situations at early school years.

The longitudinal studies reviewed in this chapter indicate that the quality of adult-child interactions also makes a difference in preschool and kindergarten. Teachers can instruct children explicitly in the link between spoken and written language, particularly the grapheme-phoneme connections, but at the same time, they can promote literacy development by providing a foundation for motivation, interest, communication, knowledge and attitudes towards reading through supportive teacher-child interactions. These two teaching functions are important to recognise and study as both separate and interrelated issues. Warm and sensitive teacher-child interactions and teacher scaffolding of learning in a print rich environment in preschool and kindergarten promote language and literacy skills for all children, but in particular, for those who are at risk for RD.

Pianta (2006) has presented two relationship functions (support and instruction) with communicative modalities (oral/nonverbal communication or print) of teacher literacy behaviour in classroom. The intersections of these relationship functions and communicative modalities are literacy related outcomes (e.g. motivation or decoding). Following this idea Figure 22.2 provides a summary of the Finnish Kindergarten classrooms how adults support children through adult-child interaction and literacy related activities to facilitate emerging literacy skills development before school entrance.

	Support through adult-child interaction	Support through literacy related activities
Verbal communication	<ul style="list-style-type: none"> • Language skills • Vocabulary • Talking and listening • Discussions • Engagement with recorded stories etc. 	<ul style="list-style-type: none"> • Phonological awareness • Speaking and singing rhymes • Linking sounds to letters • Higher-order vocabulary • Discussions about content • Listening comprehension
Communication with print	<ul style="list-style-type: none"> • Interest in environmental print • Enjoyment of shared reading • Enjoyment of print • Engagement with print materials • Computer games with print • Linking print to meaning • Using book and literacy areas 	<ul style="list-style-type: none"> • Naming letters • Emergent writing and mark making • Letter-sound correspondance • Word recognition and decoding • Computer games with letters, sounds and words • Shared reading • Collaborative text creation

Figure 22.2 Supporting emerging literacy learning in Finnish kindergarten

In interventions, it is important to understand how different dimensions of interactions between children and adults at home and in classrooms can be calibrated to respond to children’s social and instructional needs while meeting the curriculum aims of ECE and kindergarten. However, more research is needed on the literacy behaviour in early childhood classrooms and the effect of different pedagogical solutions on children’s emerging literacy skills. The high quality of ECE can create a strong foundation for children’s development of literacy skills and their interest in it.

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