



Early Literacy: Conceptual Frameworks and Intervention Approaches*

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Article Information	ABSTRACT
Received: 17.11.2020	Early literacy refers to the prior knowledge, skills, and attitudes that one acquires before formal literacy skills in the preschool period. The literature suggests that the acquisition of early literacy skills in the preschool period has a significant impact on academic skills such as learning to read and reading comprehension in the following years. In addition to increasing academic achievement, early literacy skills help children gain a positive attitude toward literacy and enable them to adapt easily to literacy learning in the future. Therefore, intervention approaches that support the development of early literacy skills in the preschool period are of great significance. This review depicts the conceptual framework of early literacy and describes the intervention approaches used in the development of early literacy in the preschool period in terms of content and technique. Keywords: Early literacy, phonological awareness, print awareness, intervention approaches
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1. INTRODUCTION

Literacy is a concept that includes reading, writing, speaking, listening, examination, and thinking skills that enable the effective use of verbal and written communication systems (Cooper, Kiger, Robinson, & Slansky, 2012; Pullen & Justice, 2003). The foundations of literacy skills, which researchers believe one acquires by learning to read and write in primary school, are set in early childhood (Pullen & Justice, 2003). Concepts, knowledge, and skills related to literacy developed in the preschool period indicate that effectively predict children's future reading success (Adams, 1990; Donaldson, 1978; Snow, Burns, & Griffin, 1998; Whitehurst & Lonigan, 1998). Children who grow up in an environment rich in reading and writing start school with a developed understanding of the basic concepts of reading, and some of these children even learn to read before they start school (Adams, 1990; Dickinson & Tabors, 2001). Recent studies on reading offer substantial evidence that children with poor reading skills in the beginning of school remain poor readers throughout their school life and beyond (Adams, 1990; Francis, Shaywitz, Stuebing, Shaywitz, & Fletcher, 1996; Juel, 1988; Stanovich, 1986; Torgesen & Burgess, 1998). Increasing evidence indicates that there are three key elements of early literacy related to later reading success: (a) phonological awareness, (b) print awareness, and (c) language (Whitehurst & Lonigan, 1998). In addition, research indicates that letter knowledge, which is one of the distinguishing variables of early literacy, is also related to later reading success (Justice, Sofka, & McGinty, 2007). These variables lay the foundation of individual differences in reading in the future (Lonigan, Burgess, & Anthony, 2000; Stuart, 1995). Children can develop these skills through the support of experienced people (family, teachers, peers, etc.) and opportunities offered in life (Zygouris-Coe, 2000). The preexisting development of children plays an important role in children being successful in the formal literacy process. Children do not start reading and writing suddenly; they go through some developmental stages prior. The definitions of these developmental stages are the following:

Emergent Literacy. This stage extends from infancy to the end of the preschool period. It is the developmental stage in which children begin learning reading and writing within a natural process starting from birth and are in a continuous state of development in line with the knowledge, skills, and attitudes they acquire from their environment. This period includes the

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behavior the child exhibits before starting to read and write. Examples of emerging literacy behaviors are children's eagerness to read and write, children extending the book to an adult to read, and pretending to read/write. Children exhibiting interest in writings and books and recognizing units such as sounds and syllables in spoken language are also among the skills of this period. The development of these skills is connected to the importance that families or society attributes to literacy before starting formal education and the attitudes toward the purpose of literacy (Justice, 2006a; Pullen & Justice, 2003).

Early Literacy. Early Literacy includes children entering the comprehensive world of words, language, stories, books, and poems and involves children being aware of written material, words, and the sounds of language. According to Horowitz-Kraus and Hutton (2015), early literacy experiences play a significant role in the development of neurological structures that contribute to the development of reading in the future. Early literacy, which plays a major role in the acquisition of literacy before literacy learning, has sub-dimensions, which include phonological awareness, print awareness, and language skills (Pullen & Justice, 2003). In other words, early literacy refers to acquiring knowledge, attitudes, and prerequisite skills related to reading, writing, and language skills before transitioning to formal literacy and includes the development of a general understanding of these skills (Justice, 2006a; Justice & Ezell, 2004; Justice & Kaderavek, 2004; Justice & Pullen, 2003; Whitehurst & Lonigan, 1998; Zygouris-Coe, 2000). Children develop early literacy skills during the preschool period. Early literacy studies encourage children to become acquainted with stories, books, and early writing experiences ahead of time.

In the literature, there are differences related to the use of the "emergent literacy" and "early literacy" concepts mentioned above. Some studies use these concepts interchangeably (Pullen & Justice, 2003; Rohde, 2015), whereas some studies review them as separate concepts (Justice, 2006a). Considering the skills and behavior patterns of the concepts, emergent literacy expresses a natural development process that includes behavior that a child spontaneously exhibits starting from infancy. In the national literature, this concept is also known as "emergent literature" in English; however, researchers use the Turkish concepts of "kendiliğinden ortaya çıkan (Akyüz & Doğan, 2017, 2019), filizlenen (Altun, Erden, & Snow, 2016; Baydik, 2003; Uzuner, 1996), and gelişen (Atlara ve Uzuner, 2018; Karasu, 2014) okuryazarlık" as well. Early literacy, meanwhile, includes more planned activities performed for certain skills (phonological awareness, print awareness, and language) in the preschool period. Thus, early literacy does not refer to teaching literacy in the early period.

Considering the information presented above, one can clearly note the significant role early literacy plays in the literacy process. In fact, children who have early literacy experience can be more successful in the literacy process than children with no experience (for reasons such as developmental reasons and socioeconomic level); moreover, children who have not acquired early literacy skills have difficulties in the formal reading and writing process and are in the at-risk group (Justice, 2006a; Justice et al., 2002; Justice and Pullen, 2003; Schryer, Sloat, & Letourneau, 2015; Spira, Bracken, & Fischel, 2005). The reason for this is that early literacy experiences have a positive effect on children in developing a positive attitude toward literacy and learning to read (Zygouris-Coe, 2000).

All of the mentioned research results, which reveal that early literacy has a significant impact on literacy in the future (Adams, 1990; Dickinson & Tabors, 2001; Donaldson, 1978; Justice et al., 2007; Justice, 2006a; Justice et al., 2002; Justice & Pullen, 2003; Lonigan, Burgess, & Anthony, 2000; Snow, Burns, & Griffin, 1998; Schryer, Sloat, & Letourneau, 2015; Spira, Bracken, & Fischel, 2005; Stuart, 1995; Whitehurst & Lonigan, 1998), emphasize the contribution of early literacy to language development. In fact, language, a component of early literacy, has a critical place in terms of receptive and expressive language development. Language, which will be reviewed in detail in the following sections of the article, involves understanding and expressing morphemes and semantics. However, there are also studies demonstrating a positive relationship between the pragmatic dimension of language and early literacy skills (Reeder & Shapiro, 1997; Reeder, Wakefield & Shapiro, 1988; Snow, Tabors, Nicholson, & Kurland, 1995; Tabors, Roach, & Snow, 2001). Thus, supporting the early literacy skills of a child also means supporting receptive and expressive language skills. The article reviews early literacy skills in detail below.

1.1. Early Literacy Skills

There are different classifications regarding early literacy skills in the literature. According to Whitehurst and Lonigan (1998, 2001), early literacy skills include the two main areas of inside-out and outside-in skills. Inside-out skills include decoding a written unit into phonemes and phonemes into language units. In other words, this dimension includes skills such as phonological awareness, print awareness, and letter-sound knowledge. Alternatively, outside-in skills include making sense of what you read in the appropriate contextual framework and the ability to express them. In this sense, outside-in skills are related to the pragmatic component of language. Considering the developmental stages of the literacy process, inside-out skills have a more important place. Outside-in skills gain importance after learning reading and writing (Whitehurst & Lonigan, 1998, 2001). Meanwhile, Mason and Stewart (1990) reviewed early literacy under four fundamental dimensions. Accordingly, the concepts and functions of literacy component includes the general understanding of and the behavior of reading and writing; the writing and composing component includes focusing on words and sentences in the text; the knowledge about letters and words component includes letter knowledge and phonological awareness; and the listening comprehension and word understanding component includes elements such as language, narrative skills, and vocabulary (Sénéchal et al., 2001). There is another classification of early literacy skills under the two main headings of code-related and meaning-related skills (Justice et al., 2007). Table 1 summarizes the classifications for early literacy described above.

Table 1.
Different Classifications of Early Literacy Skills

Whitehurst and Lonigan (1998, 2001)	Justice, Sofka, and McGinty (2007)	Cited by Sénéchal, LeFevre, Smith-Chant, and Colton (2001) from Mason and Stewart (1990)
<p>I. <i>Inside-out skills</i></p> <ul style="list-style-type: none"> • Language units • Sound units • Print units <p>II. <i>Outside-in skills</i></p> <ul style="list-style-type: none"> • Contextual units • Semantic units 	<p>I. <i>Code-related skills</i></p> <ul style="list-style-type: none"> • Alphabet knowledge • Print awareness • Phonological awareness • Letter-sound knowledge <p>II. <i>Meaning-related skills</i></p> <ul style="list-style-type: none"> • Vocabulary • Grammatical understanding • Narrative 	<p>I. <i>Concepts and functions of literacy</i></p> <p>II. <i>Writing and composing</i></p> <p>III. <i>Knowledge about letters and words</i></p> <p>IV. <i>Listening comprehension and word understanding</i></p>

In addition, Rohde (2015) presented an approach related to early literacy called “the comprehensive emergent literacy model.” As distinct from other classifications, in this model, Rohde (2015) touched upon the development of early literacy components and their interactions with one another and with the environment. Accordingly, although early literacy components have a separate development within themselves, the development of any of these components also affects another. Additionally, environmental variables (such as parents displaying attitudes and behavior that support early literacy or providing environments that contain materials suitable for children) are related to the early literacy development of children (Rohde, 2015). Figure 1 summarizes this approach.

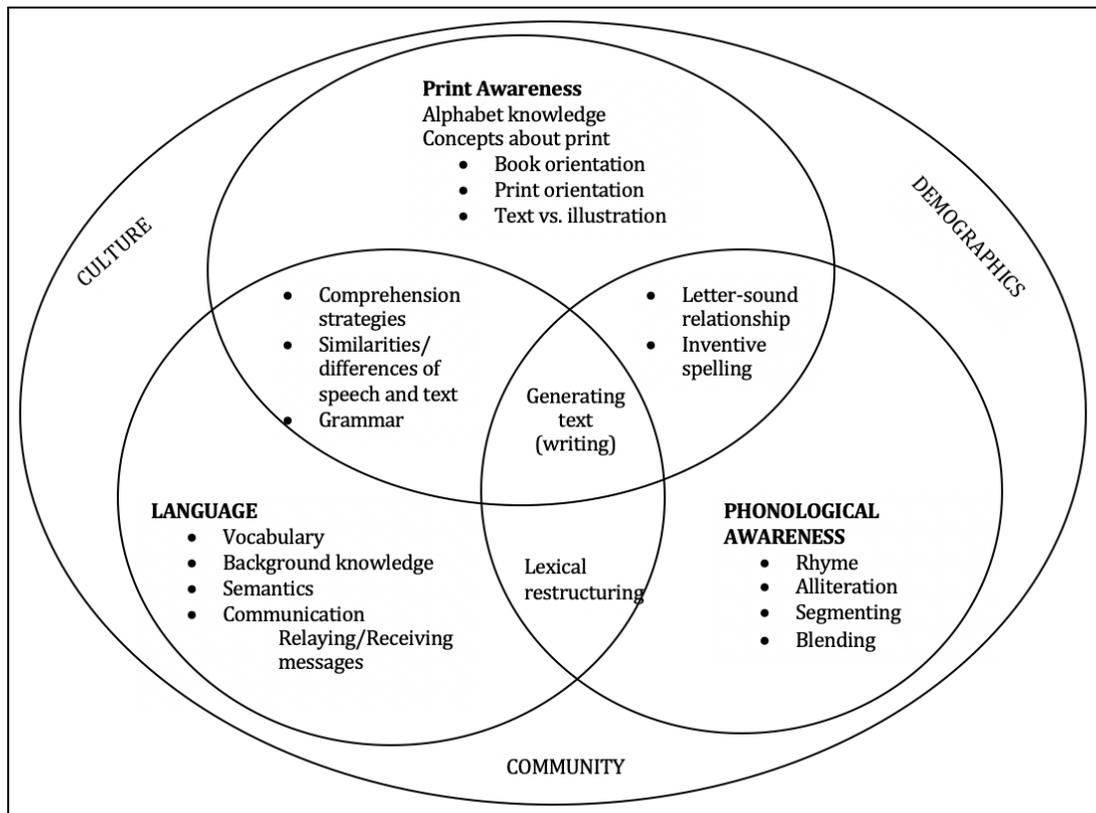


Figure 1. The comprehensive emergent literacy model
Retrieved from Rohde, L. (2015). The comprehensive emergent literacy model: Early literacy in context. *SAGE Open*, 5(1), 1-11.

Although the summarized classifications in Table 1 use different categorizations (such as inside-out in one and code-related in the other, etc.), they refer to similar points. Whitehurst and Lonigan’s (1998, 2001) “inside-out skills,” Justice et al.’s (2007) “code-related skills,” and Mason and Stewart’s (1990) “1) concepts and functions of literacy, 2) writing and composing, and 3) knowledge about letters and words” components refer to the skills of “recognition and decoding” such as writing, elements of writing, and sounds. Whitehurst and Lonigan’s (1998, 2001) “outside-in skills,” Justice et al.’s (2007) “meaning-related skills,” and Mason and Stewart’s (1990) “listening comprehension and word understanding” components refer to “understanding and narration.” This article describes early literacy skills based on the classification of Justice et al. (2007).

1.1.1. Code-related skills

Code-related skills form the basis of the decoding skills required for reading and writing and are significant in the acquisition of literacy (Goldstein, 2011; Hammill, 2004). Especially, alphabet knowledge, phonological awareness, and print awareness are critical in predicting reading among these skills (Goldstein, 2011; Whitehurst & Lonigan, 2001).

- **Alphabet knowledge:** Alphabet knowledge refers to information about the letters in the alphabet (including their uppercase and lowercase forms) (Justice et al., 2007; Justice & Kaderavek, 2004; Whitehurst & Lonigan, 1998). It provides a foundation for letter-sound knowledge that will subsequently develop (Kaderavek & Justice, 2004).
- **Letter-sound knowledge:** Letter-sound knowledge refers to knowledge regarding the sounds letters correspond to (Justice et al., 2007; Justice et al., 2002). Whether the language has a transparent or opaque orthography is a significant element of this knowledge. Research suggests that establishing the letter-sound relationships in languages with transparent orthography, such as Turkish, where each letter corresponds to a sound, is easier than opaque languages, where each letter corresponds to more than one sound. Therefore, research indicates that reading skills are acquired faster in languages with transparent orthography (Durgunoğlu & Öney, 1999, 2002; Öney & Durgunoğlu, 1997). Similarly, Justice et al. (2002) emphasize that letter-sound knowledge has a strong relationship with reading success.
- **Print awareness:** Print awareness refers to understanding the formal rules of written language and the function of writing. It includes information such as the writing direction, the names of the different parts of the text (letters, words), the systematic formation of these parts to produce the text, and punctuation marks. In addition, print awareness is frequently used to refer to children's knowledge of books, such as the cover of a book, the placement of the title, and the placement of the author's name (Justice et al., 2007; Justice & Kaderavek, 2004; Justice & Pullen, 2003; Kaderavek & Justice, 2004; Schmitt & Justice, 2012). Furthermore, print awareness includes the ability to notice written materials (logos or signs) in the environment (Justice et al., 2002).
- **Phonological awareness:** Phonological awareness refers to the awareness of spoken language sounds such as words, syllables, rhymes, and phonemes. Skills related to phonological awareness include separating words into phonemes, combining them, and substituting them (Justice et al., 2007; Justice et al., 2002; Justice & Kaderavek, 2004; Justice & Pullen, 2003; Kaderavek & Justice, 2004; Lombardino, Bedford, Fortier, Carter, & Brandi, 1997; Schmitt & Justice, 2012; Schuele & Boudreau, 2008; Turan & Gül, 2008). In other words, one being able to perceive the sound structures of words and make the desired changes accordingly indicates that they have phonological awareness. The development of phonological awareness skills is a process that extends from the preschool period to primary education (Kaderavek & Justice, 2004). Upon examining the development process of phonological awareness, one can observe that children first gain awareness at the level of words and syllables, and subsequently this awareness develops into the form of awareness of phonemes universally (Acarlar, Ege, & Turan 2002; Anthony, Lonigan, Driscoll, Philips, & Burgess, 2003; Ergül et al., 2021; Kaderavek, 2011; Kaderavek & Justice, 2004; Turan, 2015). Studies examining the development of phonological awareness skills of Turkish-speaking children, in particular, indicate that word and syllable awareness are the earliest developing skills (Acarlar et al., 2002) and that Turkish-speaking children are more successful in these skills than English-speaking children due to the transparent orthographic structure of the language (Durgunoğlu & Öney, 1999). Other skills such as rhyme awareness, phoneme recognition, phoneme combination, phoneme separation, counting the phonemes in words, and phoneme manipulation, respectively, follow word and syllable awareness skills (Acarlar et al., 2002; Kaderavek, 2011; Kaderavek & Justice, 2004). Table 2 summarizes the phonological awareness skills and their developmental process. Many studies in the literature demonstrate a positive relationship between phonological awareness and reading skills (learning to read, reading correctly, fluent and fast reading, etc.) (Acarlar et al., 2002; Akoğlu & Turan, 2012; Demirtaş & Ergül, 2019; Erdoğan, 2012; Ergül et al., 2021; Güldenoğlu, Kargın, & Ergül, 2016; Seçkin-Yılmaz & Baydık, 2020; Turan, 2015; Turan & Akoğlu, 2011; Turan & Akoğlu-Gül, 2008; Turna & Güldenoğlu, 2019). Studies indicate that this relationship is also seen in languages with different orthographic structures (Deacon & Kirby, 2004; Durgunoğlu & Öney, 1999, 2002; Ergül et al., 2021; Rakhlin, Cardoso-Martins, & Grigorenko, 2014; Ziegler et al., 2010). Phonological awareness skills, which facilitate the acquisition of reading, continue to improve after the acquisition of reading (Seçkin-Yılmaz & Baydık, 2020; Turan, 2015) and tend to aid people in acquiring higher-level language skills (Acarlar et al., 2002; Turan, 2015). From this perspective, one can say that phonological awareness and reading have a correlational relationship.

Table 2.

Phonological Awareness Skills according to Developmental Stages

-
- Word awareness
 - Syllable awareness
 - Rhyme awareness
 - Phoneme awareness
 - Phoneme manipulation (phoneme removal, splitting, and merging)
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Note: This table was adapted from the sources of Kaderavek, J.N., and Justice, L.M. (2004). Embedded-explicit emergent literacy intervention II: Goal selection and implementation in the early childhood classroom. *Language, Speech, and Hearing Services in Schools*, 35 (3), 212-228; Schuele, CM, and Boudreau, D. (2008). Phonological awareness intervention:

Beyond the basics. *Language, Speech, and Hearing Services in Schools*, 39(1), 3-20, and Turan, F. (2015). Phonological awareness skills. In F. Temel (Ed.), *Language and early literacy* (pp. 91-105). Ankara: Hedef CS Publications.

1.1.2. Meaning-related skills/language

Reading includes both understanding and decoding. The development of reading is generally divided into two: learning to read and reading to learn. The learning to read stage is completed with the acquisition and reinforcement of decoding skills (Justice et al., 2007). All of these skills, which include understanding and expressing morphology and semantics, are also known as “language skills” (Justice & Kaderavek, 2004; Kaderavek & Justice, 2004; Whitehurst & Lonigan, 2001). Meaning-related skills are presented below (Justice et al., 2007).

- **Vocabulary:** Vocabulary refers to the number of words that children understand and/or use. The vocabulary size is closely related to skills such as learning, storing, and categorizing new words.
- **Grammatical understanding:** Grammatical understanding refers to the child's knowledge of the syntax and morphology rules of his/her native language.
- **Narrative:** Narrative refers to the language proficiency the child uses for understanding and narration.

Early literacy skills are significant in terms of facilitating both the transition to reading and reading comprehension. One can transfer the skills described above to children through early literacy interventions (Leach, Scarborough, & Rescorla, 2003; Whitehurst & Lonigan, 1998). As informed herein, interventions that support early literacy skills have a very significant place in terms of children's literacy development. These interventions are thoroughly discussed below.

1.2. Early Literacy Intervention Approaches

Early literacy intervention approaches are classified as embedded, explicit, and embedded-explicit intervention (Justice & Kaderavek, 2004; Kaderavek & Justice, 2004). Embedded intervention is based on naturalistic teaching approach and is a whole language model. This model uses all learning environments and opportunities that exist in daily life. In other words, it uses the “contextualized” method. Thus, this model naturally exposes the child to situations associated with literacy. The child is the one who initiates the interaction, whereas the adult takes on the facilitator role. Conversely, explicit intervention determines the target skills in advance and presents them to the child within a program. It is decontextualized from a particular social context. In other words, because the skills that one plans to transfer to the child are determined in advance, they are not presented to the child naturally in social life but in a structured environment such as the classroom. This program presents the target skills in a sequence, unlike the approach in embedded intervention, which uses all learning environments and opportunities. The adult takes on the director role because it is a structured approach (Justice & Ezell, 1999; Justice & Kaderavek, 2004; Watkins & Bunce, 1996). Embedded- explicit intervention uses both embedded and explicit intervention methods together (Justice & Kaderavek, 2004; Kaderavek & Justice, 2004).

1.3. The Methods of Embedded Intervention

The embedded intervention is based on the natural teaching approach; therefore, it contains the method of “using the natural context.” The natural contexts mentioned in this concept refer to the social contexts of daily life. These contexts expose children to situations involving literacy elements. Embedded intervention methods are literacy-enriched play, shared reading, and print-rich environments. Additionally, talking about the texts in the environment and print referencing are also practiced within this context. This intervention method can be applied in any social context, at home and in the classroom/school environment (Justice et al., 2007; Justice & Kaderavek, 2004; Kaderavek & Justice, 2004).

1.3.1. Literacy-enriched play

Play contains social interaction and is used as a tool to develop a positive attitude toward literacy due to the satisfaction they provide (Sonnenschein, Baker, Serpell, & Schmidt, 2000). In this context, it is possible to enrich the dramatic play centers in classrooms with materials containing literacy elements (Table 3). Thus, children are exposed to these materials in a natural context. Play contains literacy materials supports early literacy skills in terms of print awareness and alphabet knowledge (Justice et al., 2007; Justice & Pullen, 2003). Especially, when the adult is the model and engages in dialogue with children, children can interact more with these materials, and the materials have a greater impact on early literacy skills (Christie & Enz, 1992; Neuman & Roskos, 1990). In addition to the classroom environment, it is possible to place these materials, which support early literacy skills, in the children's rooms and among their toys in the home environment.

1.3.2. Shared book reading as an umbrella concept

Shared book reading refers to the adult and child reading together. In the Turkish literature, some researchers use the concept of “reading together (birlikte okuma)” instead of “shared book reading (paylaşımlı kitap okuma)” (Erdoğan et al., 2016;

Sarıca, 2016). The fact that children are exposed to rich language stimulation in a social context gives this type of book reading activity the “shared” quality (Goldstein, 2011). The shared book reading activity provides children with a natural, interesting, and motivating environment for literacy (Watkins & Bunce, 1996). In this activity, adults and children interact with one another, and the activity progresses in a dynamic manner. Additionally, this activity has the feature of being directed according to the objectives of the intervention and the language development characteristics of the child (Kaderavek & Justice, 2002).

Table 3.

Literacy Materials Available in Dramatic Play Centers

<ul style="list-style-type: none"> ● Shopping lists ● Newspaper-magazines ● Variety of pens ● Posters ● Sticky notes ● Menus 	<ul style="list-style-type: none"> ● Toy banknotes ● Calendars ● Computer keyboard ● Tickets ● Maps ● Pin boards for written materials
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Note: This table was adapted from the sources of Neuman, S.B. and Roskos, K. (1990). Play, print, and purpose: Enriching play environments for literacy development. *The Reading Teacher*, 44(3), 214-221, and Justice, L. M. and Pullen, P. C. (2003). Promising interventions for promoting emergent literacy skills three evidence-based approaches. *Topics in Early Childhood Special Education*, 23(3), 99-113.

In the literature, there are discussions regarding the reasons for using shared book reading as an intervention method in the development of early literacy skills. According to Kaderavek and Justice (2002), these reasons are as follows: 1) the development of a perspective relating to early literacy, 2) naturalistic approaches gaining significance as an intervention method, 3) social-interactionist theories on language acquisition gaining more acceptance, and 4) the acceptance of ideas that early interventions should include skills that will be necessary for future school success. Additionally, the contribution that shared reading makes to children's language development explains the use of shared reading as an intervention method. Many studies in the international literature indicate that shared reading, supports the development of children's language (the complexity of language and narrative skills), print awareness skills, and attitudes toward reading (Crain-Thoreson & Dale, 1999; Ezell, Justice, & Parson, 2000; Kotaman, 2020; McNeill & Fowler, 1999; Sénéchal, LeFevre, Hudson, & Lawson, 1996; Sim, 2012). There are also similar research results in the Turkish literature. Yumuş and Turan (2021) analyzed the effectiveness of a twelve-week shared reading program they conducted through parental training for mothers with babies/toddlers aged of 8–16 months. Accordingly, the researchers observed that the program had a significant effect on infants' language comprehension, word production, and literacy skills. The results of another interactive reading program performed with at-risk children aged 4–5 years and in need of protection revealed that the program was effective on children's expressive language skills (Akoğlu, Ergül, & Duman, 2014).

Another study examining the effect of the interactive reading program on the language development of children at lower socioeconomic levels found that at the end of four weeks, the receptive, expressive, and total language scores of the children in the experimental group increased (Şimşek & Erdoğan, 2015). Another study examining the effects of the interactive reading process by providing education to mothers observed that language development levels of the children in the experimental group increased after the nine-week interactive reading process the mothers implemented (Bıçakçı, Suhendan, & Aral, 2018). Çelik, Er, and Bıçakçı (2020) conducted qualitative interviews with mothers before and after the interactive reading program and revealed that mothers further emphasized the effect of the program on children's language development. In addition to studies that demonstrate the effect of interactive reading on language development, there are studies that display its contribution to early literacy skills and future school success. In their study, Efe and Temel (2018) concluded that the 10-week interactive reading program that they conducted with children growing up in families with low socio-cultural characteristics and attending a preschool education institution had a high effect on children's print awareness. In their study investigating the effect of the interactive book reading program (IBRP) on the basic language skills of primary school first grade students, İlhan and Canbulat (2021) revealed that the students in the experimental group showed a significant increase in their receptive and expressive language skills and spelling rules awareness. In another study investigating the long-term effects of IBRP, researchers found that, when the children in the experimental group that participated in the IBRP reached the first grade of primary education, their reading time for meaningful words, the number of meaningless words they read correctly, the number of correct words they read per minute, and the number of correct answers they gave to reading comprehension questions were significantly higher than the children in the control group (Ergül, Akoğlu, 2007; Karaman, & Sarıca, 2017). All these research results indicate that shared reading significantly contributes to the language development of at-risk children, especially in infancy and early childhood, and it positively effects their early literacy skills and therefore their reading and reading comprehension skills in later school life.

Parents can also apply shared reading alongside professionals, as it is a naturalistic intervention method. However, it is essential that parents use appropriate behavior during shared reading because parent/adult behavior during shared reading are effective on children's early literacy skills (Justice & Pullen, 2003). It is crucial for the quality of the interaction that adults take on an equal role with the child during shared reading. If the child stays in the background in terms of the distribution of roles and the parent alone holds control, this will greatly limit the child's participation (Kaderavek & Justice, 2002; Rabidoux

& MacDonald, 2000). If the adult follows the child's interests, level of language development, and participation well, the joint participation in reading will be at the maximum level (Kaderavek & Justice, 2002).

According to Justice and Pullen (2003), *shared reading refers to an umbrella concept* and includes the interactive/dialogic reading and print referencing methods. However, in the "What Works Clearinghouse" intervention reports published by the U.S. Department of Education, shared reading and interactive reading were considered under the umbrella of "interactive shared book reading" (the U.S. Department of Education, 2015, 2007a, 2007b). Table 4 summarizes the classification patterns of both approaches. This article is based on the classification of Justice and Pullen (2003).

Table 4.

Methods Used in Shared Reading

Justice and Pullen (2003)	The U.S. Department of Education (2015, 2007a, 2007b)
<i>Shared Reading:</i>	<i>Interactive Shared Reading:</i>
<ul style="list-style-type: none"> • Interactive Reading/Dialogic Reading (Whitehurst et al. 1988) • Print Referencing (Ezell and Justice, 2000). 	<ul style="list-style-type: none"> • Shared Reading • Interactive Reading

Some strategies to increase joint participation in adult-child interaction during shared reading are as follows: to draw the attention of the child to the text, pictures, and the meaning of the words, to pause, to give the child the option to choose a book, to allow the child to move the book with his hands, to shape the interaction according to the child's interests and abilities, and to ask the child to read the book (Kaderavek & Justice, 2002; the U.S. Department of Education, 2015). Table 5 summarizes the strategies to increase joint participation during shared reading. The methods used in shared reading are as follows:

- Drawing the child's attention to the text and pictures
- Following the interest of the child
- Focusing on the features of the text and pictures in the book
- Reading and reviewing the book with the adult
- Drawing attention to the different words
- Focusing on grammatical features
- Talking about features of the books
- Asking questions to one another
- Playing, singing, and having fun
- Extension
- Giving answers
- Talking about the pictures and content in the book
- Making connections with daily life
- Asking open-ended questions, 5W1H questions
- Print referencing
- Making comments on the texts
- Pointing at text while telling the story

All these features of shared reading differentiate it from traditional reading. Şimşek (2017) compared the effectiveness of dialogic reading, e-book sharing, and traditional reading methods between these three different groups. The results revealed that the difference in the pretest-posttest scores in the receptive language, expressive language, and total language scores of the group that used the dialogic reading method was higher than the other two groups. Similarly, Hargrave and Sénéchal (2000) compared the effects of interactive reading and traditional reading in their study with children aged 3–5 years who had developmental language delay. They observed that the group that used interactive reading acquired more new words and had a higher increase in their expressive language levels.

The abovementioned strategies can be easily embedded in reading activity, attract children's attention directly to the book and keep the child's attention and curiosity alive, and both parents as well as experts can use them. Therefore, they are used as part of the naturalistic intervention method to develop children's early literacy skills. However, Kaderavek and Justice (2002) stated that using the shared reading activity as an intervention method also includes potential risks. For example, some children may not be interested in reading, and therefore it can be difficult to get the child involved in reading. Conversely, the adult may have low responsiveness and sensitivity and may not be able to appropriately use the strategies. Examples to other possible risks apart from factors related to the child and adult can be social and cultural factors, and the child's inability to generalize the skills he/she acquired in the activity of reading together.

Table 5.
Some Strategies to Increase Joint Participation During Shared Reading

The Activity	The Definition
Drawing the child's attention to the writing, pictures, and meaning of words Pausing	Showing the child the text and pictures, explaining the meaning of the newly encountered words. Stopping from time to time while reading and waiting for the child's reaction. Pausing after turning a new page and before reading the new page will allow the child to look at the pictures and naturally ask questions about the pictures and story.
Presenting the Option to Choose	Presenting the child with the option to choose which book to read and where to read it because children like to read in different places (on the floor, standing, on their favorite sofa, or in the open area).
Presenting the Child with the Opportunity to Move the Book with Their Hands	Letting the child hold the book and encouraging them to turn the pages on their own. For this, one can also use movable books, three-dimensional books, and pop-up books.
Shaping the Interaction According to the Child's Interests and Talents	Changing what is told in the story by making the words and dialogues more fun. Children will become more interested in the content described in the story as they get older.
Asking the Child to Read the Book	When the child pretends to read the book, giving them feedback such as "You read it very well" because children like to read a book they have listened to before over and over again.

Note: This table was adapted from the sources of Kaderavek, J. and Justice, L.M. (2002). Shared storybook reading as an intervention context: Practices and potential pitfalls. *American Journal of Speech-Language Pathology*, 11(4), 395-406 and the U.S. Department of Education, Institute of Education Sciences, What Works Clearinghouse (2015). WWC intervention report on shared book reading.

1.3.2.1. Interactive reading/Dialogic reading

First introduced by Whitehurst et al. (1988), this method involves reading a book to one or more children using certain interactive techniques. Shared reading is an umbrella concept that covers all approaches, and it includes many common approaches such as dialogic/interactive book reading. The difference in interactive reading is that the interaction between adults and children is sometimes more intense and includes some rules (Trivette & Dunst, 2007; the U.S. Department of Education, 2015, 2007a). For example, role changes in interactive book reading ensure that the children are also the ones who read/tell the story (the U.S. Department of Education, 2007a), and this method includes interactive and evocative behavior of adults (Whitehurst et al., 1994a; Whitehurst et al., 1994b; Whitehurst et al., 1999). This method can use different techniques for children aged 2–3 and 4–5 years (Table 6). Nonetheless, the common techniques one can apply in both groups are as follows:

- Asking the child to complete the sentence,
- Asking children to associate the stories and pictures with their own life experiences,
- Asking questions about the story,
- Asking open-ended questions about what the picture portrays,
- Asking 5W1H questions about what the picture describes,
- Encouraging the child over time to be the one that tells the story,
- Rewarding the child for telling the story and describing the pictures,
- Guiding the child with questions,
- Giving the child the opportunity to talk,
- Giving positive feedback,
- Following the child's interest,
- Expanding the child's verbal expressions,
- Identifying the words the child is unfamiliar with,
- Reading the same book over and over,
- Using materials while reading the story (Justice & Pullen, 2003; Trivette & Dunst, 2007; the U.S. Department of Education, 2007a; Whitehurst et al., 1994b; cited by Zevenbergen and Whitehurst, 2003).

In addition, some explicit intervention techniques are presented below:

- Explaining the target words in the book and the meaning of rare words to the child.

- Asking the child to describe a book they previously read using certain visual materials such as puppets by including the introduction, development, and conclusion sections.
- Asking the child to establish a cause-effect relationship regarding the events described in the book (Kaderavek & Justice, 2004).

Table 6.
Interactive Reading/ Dialogic Reading Techniques

For 2-3-Year-Old Children	
Techniques Used in the First Stage <ul style="list-style-type: none"> • Asking the question “what” • Asking new questions directed by the child’s answers • Repeating what the child said • Helping the child when necessary • Rewarding and encouraging • Following the child's interests • Enjoying the situation 	Techniques Used in the Second Stage <ul style="list-style-type: none"> • Asking open-ended questions • Expanding on what the child is saying • Enjoying the situation
For 4-5-Year-Old Children	
<ul style="list-style-type: none"> • Fill-in-the-blank questions • Reminder questions • Open-ended questions • 5W1H questions • Questions related to daily life 	<ul style="list-style-type: none"> • Naming pictures and talking about the story • Evaluating the child's answers (rewarding correct answers, talking about alternative answers) • Extension

Retrieved from Zevenbergen, A.A. and Whitehurst, G.J. (2003). Dialogic reading: A shared picture book reading intervention for preschoolers. In P. H. Anne Van Kleeck, A.Van Kleeck, S. A. Stahl, and E. B. Bauer (Eds.). On reading books to children: Parents and teachers (pp. 170-191). Mahwah, NJ: Lawrence Erlbaum Associates.

1.3.2.2. Print referencing

This method, which was first introduced by Ezell and Justice (2000), uses verbal and non-verbal behavior patterns together, and the child is enabled to interact with them. The child's attention is drawn directly to the written language's form, feature, and function. This way, the child begins to differentiate between spoken and written language. The verbal behaviors used in the technique of print referencing are as follows: (a) Asking questions about the texts (for example, “Where do I start reading?”), (b) commenting on the texts (for example, “We have encountered this letter before; this is the letter E!”), (c) making a request regarding the text (for example, “Show me the word ‘dog’”). Non-verbal behavior patterns are pointing and one following the text with their hand while reading (Justice & Ezell, 2004; Justice & Pullen, 2003). Table 7 presents the purposes of the print referencing technique. The purpose of print referencing during shared reading activities is to support the child’s development in the areas of (a) print awareness, (b) print concepts, (c) vocabulary, and (d) alphabet knowledge.

1.3.3. Print-rich environment

Some researchers have discussed providing a print-rich environment, which is another embedded intervention method, in both physical and psychological dimensions. Providing a physically rich environment includes the dimensions of environment planning, accessibility to materials, and resource diversity (writing center, classroom library, literacy-related materials, and toys). Providing a psychologically rich environment refers to the interaction between the adult and child focused on early literacy development (Guo, Justice, Kaderavek, & McGinty, 2012). These dimensions can be reviewed as adult's guidance, interaction with children to develop early literacy skills, positive feedback, and being a model (as cited in Guo et al., 2012).

The followings are the points should be considered in the approach of providing a print-rich environment:

- Classroom libraries should contain many books with different characteristics. In addition, the books should be not only in the classroom libraries but also in various parts of the classroom (such as the dramatic play center and writing center).
- Writing centers should include different materials to encourage children to write. The teacher should be a model for the children in this case.
- The teacher should display children's essays in the classroom.
- Learning centers and materials in the classroom should have labels with pictures and text.
- Texts displayed in the classroom should be at the eye level of the children.
- There should be toys such as puzzles related to words and the alphabet in the classroom (Guo et al., 2012; Justice, 2006b).

Table 7.

The Purposes of the Print Referencing Technique

The Area	The Skill
Print Concepts	Knowing that the text flows from left to right and from top to bottom, the direction of holding the book, the front and back cover of the book, the placement of the title and the author's name on the book, the concepts of writing (such as words, sentences, question marks), the relationship between these concepts (such as putting the question mark at the end of the sentence), and the role of writing in conveying the meaning.
Word Concepts	Knowing that words are units that have separate meanings in written and spoken language.
Alphabet Knowledge	Knowing that each letter has both uppercase and lowercase forms and recognizing letters in the alphabet.

Note: This table was adapted from the sources of Justice, L. M., Sofka, A. E., and McGinty, A. (2007). Targets, techniques, and treatment contexts in emergent literacy intervention. *Seminars in Speech and Language*, 28(1), 14-24 and Justice, L. M. and Ezell, H. K. (2004). Print referencing an emergent literacy enhancement strategy and its clinical applications. *Language, Speech, and Hearing Services in Schools*, 35(2), 185-193.

1.4. The Methods of Explicit Intervention

Embedded intervention, which provides a natural teaching environment for developing children's early literacy skills, is not always sufficient, and some children are in the need of an additional intervention program (Justice et al., 2007; Kaderavek & Justice, 2004; Schuele & Boudreau, 2008). In this intervention, which is called explicit, the intervention content and the environment are structured and therefore decontextualized. Instead, the skills one aims to have the child acquire are determined and presented to the child within a program. These target skills are put in a sequence, and the appropriate materials are identified. Thus, it is ensured that children reach general skills from specific skills (phonological awareness). Phonological awareness instruction has a significant place in this intervention method and is considered within the scope of explicit intervention rather than embedded intervention (Justice & Kaderavek, 2004) because one can only conduct activities and intervention approaches for the development of phonological awareness skills in a structured context, which makes use of certain techniques.

Repetition is another important point of explicit intervention. In addition to adding new skills/areas to the intervention program, the program includes the child's previously acquired skills. Thus, it is ensured that children repeat the skills they learned before (Justice & Kaderavek, 2004). In this approach, the adult takes on the role of the director/guide and uses certain techniques. These techniques are "modeling, showing, repetitions, mutual participation, and offering alternatives" (Justice et al., 2007; Justice & Kaderavek, 2004). These techniques can be used in embedded intervention as well as in explicit intervention.

The intervention areas of explicit intervention are phonological awareness, print concepts, alphabet knowledge and writing, and language/narrative skills (Justice & Kaderavek, 2004; Kaderavek & Justice, 2004).

1.4.1. Phonological awareness

The phonological awareness is the most fundamental area of explicit intervention (Kaderavek & Justice, 2004). The purpose of phonological awareness instruction is to improve children's ability to read, write, and especially, decode words (Schuele & Boudreau, 2008). More specifically, it aims to ensure that children have phoneme awareness (Turan & Gül, 2008).

The techniques used in explicit intervention are as follows:

- While some intervention programs plan the program contents through sequencing (Schuele & Boudreau, 2008), others use the simultaneous teaching approach (Gillon, 2000).
- In studies suggesting that the intervention program should be planned through sequences, target skills are determined from less complex skills to more complex skills (Schuele & Boudreau, 2008). For example, one should first study word awareness and then syllable awareness skills. Figure 2 presents the intervention steps for the phonological awareness skill. Additionally, intervention studies should have a structure that progresses from easy to difficult. Furthermore, because some phonemes are more easily isolated than other phonemes, one should conduct phonological awareness studies by limiting phonemes (Turan & Gül, 2008). There are intervention studies that consist of a sequence plan and appear to be effective on phonological awareness skills in the Turkish literature (Akdal & Kargin, 2019; Akoğlu & Turan, 2012; Gökkuş & Akyol, 2020a; Gökkuş & Akyol, 2020b; Turan & Akoğlu, 2011).
- Intervention programs that use the simultaneous teaching approach use integrated content. They do not present skills in a sequential order. They integrate phonological awareness activities with letter-sound knowledge training. They present phoneme analysis and synthesis activities together with phoneme segmentation activities (Gillon, 2000).

- Teaching should be through modeling, explaining, and providing adequate practice opportunities for the child.
- When the child experiences challenges, he/she should receive an appropriate response through certain strategies (Schuele & Boudreau, 2008).
- Visual materials that one will use in the intervention should not cause distractions from the targeted sound (Turan & Gül, 2008).
- Fun activities that children can enjoy should be included in while planning the activities that will be implemented in the intervention programs (Turan, 2015).

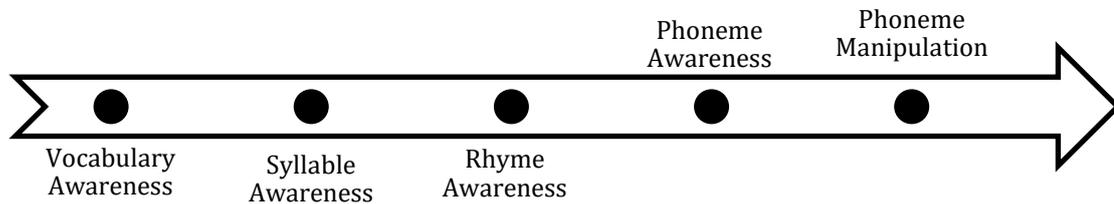


Figure 2. The intervention steps for phonological awareness skills

Note: This figure was adapted from the sources of Kaderavek, J. N., & Justice, L. M. (2004). Embedded-explicit emergent literacy intervention II: Goal selection and implementation in the early childhood classroom. *Language, Speech, and Hearing Services in Schools*, 35(3), 212-228; Schuele, C. M., & Boudreau, D. (2008). Phonological awareness intervention: Beyond the basics. *Language, Speech, and Hearing Services in Schools*, 39(1), 3-20, and Turan, F. (2015). Phonological awareness skills. F. Temel (Ed.). *Language and early literacy* (pp. 91-105). Ankara: Hedef CS Publications.

1.4.2. Print concepts/Print awareness

The skills related to print awareness (such as providing a print-rich environment, talking about the writings in the environment and in the books) can be gained in natural context through embedded intervention. However, according to Kaderavek and Justice (2004), these techniques are not sufficient for some children, and there is a need for additional techniques as complementary features. These are as follows:

- Arousing the child's curiosity by holding the book upside down from time to time. In that case, one can ask the child to turn the book in the correct direction. If necessary, one can hold the child by the hand and help him/her turn the pages (Kaderavek & Justice, 2004),
- Asking the child to show some parts of writing (such as words, titles) while reading a book. Thus, the child will establish a relationship between written and spoken language (Kaderavek & Justice, 2004),
- Enabling the child to establish a relationship between written language and daily life. For example, one can ask questions about a situation the child reads in the book and ask a question such as "Have you seen this before?" Thus, the child will establish a relationship between his/her own life and the content of the story (Anderson-Yockel & Haynes, 1994),
- Doing activities that use writing (for example, designing a book),
- Using different types of written materials in activities with children.

1.4.3. Alphabet knowledge and writing

Children can gain alphabet knowledge and writing skills in natural contexts through embedded intervention as in print awareness. However, like print awareness, some children may need some complementary practices. These are as follows:

- Singing alphabet songs in activities,
- Asking children to guess the letters in their names,
- Asking children to guess the first letter of the texts they see in their environment,
- Asking children to specify the uppercase and lowercase letters (Kaderavek & Justice, 2004),
- Asking children to symbolically draw the shapes of the letters with their fingers in the air or in the sand,
- Making analogies between letters and some animals and objects,
- Baking cookies in the shape of letters,
- Using ABC books, magnet letters, letters made of sandpaper and different textures, alphabet blocks, and puzzles in activities (cited in Bayraktar and Temel, 2015).

1.4.4. Language/Meaning-related skills

Language skills that include vocabulary, the ability to understand grammatical rules, and narrative skills can be gained in natural contexts just as in other fields. However, some structured approaches are also necessary (Kaderavek & Justice, 2004). The two approaches identified in the literature that may be particularly useful in improving children's language performance are focused stimulation and interactive reading (Pullen & Justice, 2003). Focused stimulation is an approach that supports

language. People use this approach both in support of language as an early literacy skill and in interventions related to language support.

1.4.4.1. Focused stimulation

Focused stimulation is a source that has a significant impact on the quantity and quality of environmental stimuli, vocabulary, and syntax development (Tamis-LeMonda, Bornstein, & Baumwell, 2001). Focused stimulation means that the adult and child have the same focus (Cable & Domsch, 2011) and is an approach used in interventions to increase language use (Solomon-Rice & Soto, 2014). This approach exposes the child to a large number of stimuli containing different examples of determined target language form (words, phrases, etc.). It is not mandatory for the child to react to these stimuli, but the opportunity is provided for him/her to use the targeted language in appropriate contexts (Cable & Domsch, 2011; Ellis Weismer, Venker & Robertson, 2017; Girolametto, Pearce, & Weitzman, 1996). In addition, the focused stimulation approach is frequently used for children who need support in language and communication development (Cleave & Fey, 1997; Ellis et al., 2017; Pullen & Justice, 2003; Solomon-Rice & Soto, 2014; Wolfe & Heilmann, 2010). The strategies used in this approach, such as *modeling, expansion, and repetition* can be easily incorporated into daily life (Cleave & Fey, 1997):

Modeling:

In the most general sense, this strategy includes explaining the correct use of any target language form to the child through examples. One can perform modeling in different ways when the child has or does not have any experience with the target language form.

- One can be a model of the appropriate use of the targeted language form without breaking away from the context when the child does not have any experience with the target.
- When the child makes target-driven attempts, there are three different modeling forms that adults can use in response:
 - The first is to correct and rearticulate the mistakes in the child's expression. In this case, it is important to do this without using negative statements (such as “no, it is not like that/you said it wrong”) that will prevent the child from taking action.
 - Another form of modeling is to use the child's expression in different ways. For example, one can use the child's expression in positive or negative forms by turning it into a yes/no question.
 - The third form is the use of expansions and repetitions. *Expansion* refers to combining one or two of the child's expressions into a single expression and using a slightly more complex structure than the child is using. Meanwhile, *in repetitions*, the expressions the child uses are repeated, and if there is an error in the child's use, one acts as a model by repeating and correcting these incorrect expressions within corrected sentences.

Enabling the child to make an attempt:

This strategy involves arranging or manipulating the environment or activity such that the child is more likely to use the targeted language form. In case the child misuses the targeted language or uses different forms in his/her reactions, one can use the modeling forms mentioned above. The following techniques can be used for this purpose:

- Purposefully making a mistake in any activity (for example, deliberately putting the puzzle piece in the wrong place, pretending to forget when it is the child's turn, etc.) and ensuring that the child reacts to this situation.
- Asking questions with appropriate expressions that include the targeted language, while pretending not to understand what the child is trying to say.
- Asking imperative-leading questions that include the use of the targeted language form (for example, when the target is to use the adjectives big and small, one can ask the question “Do you want the big car or the small car?,” forcing the child to use one of the adjectives of big or small).

1.5. The Methods of Embedded- Explicit Intervention

In addition to the abovementioned embedded and explicit intervention, researchers developed a mixed model that incorporates both intervention approaches. Embedded- explicit intervention uses both embedded and explicit intervention methods together (Justice & Kaderavek, 2004; Kaderavek & Justice, 2004). This intervention model exposes children to high-quality, natural, context-based daily life early literacy environments and also includes them in structured intervention programs that will impact their future reading skills. The embedded- explicit intervention provides an opportunity to combine the evidence-based practices of both models (from general to specific and specific to general) while supporting each other. In this model, all the practices described above can be implemented in a holistic approach. Figure 3 presents the schematic representation of embedded- explicit intervention.

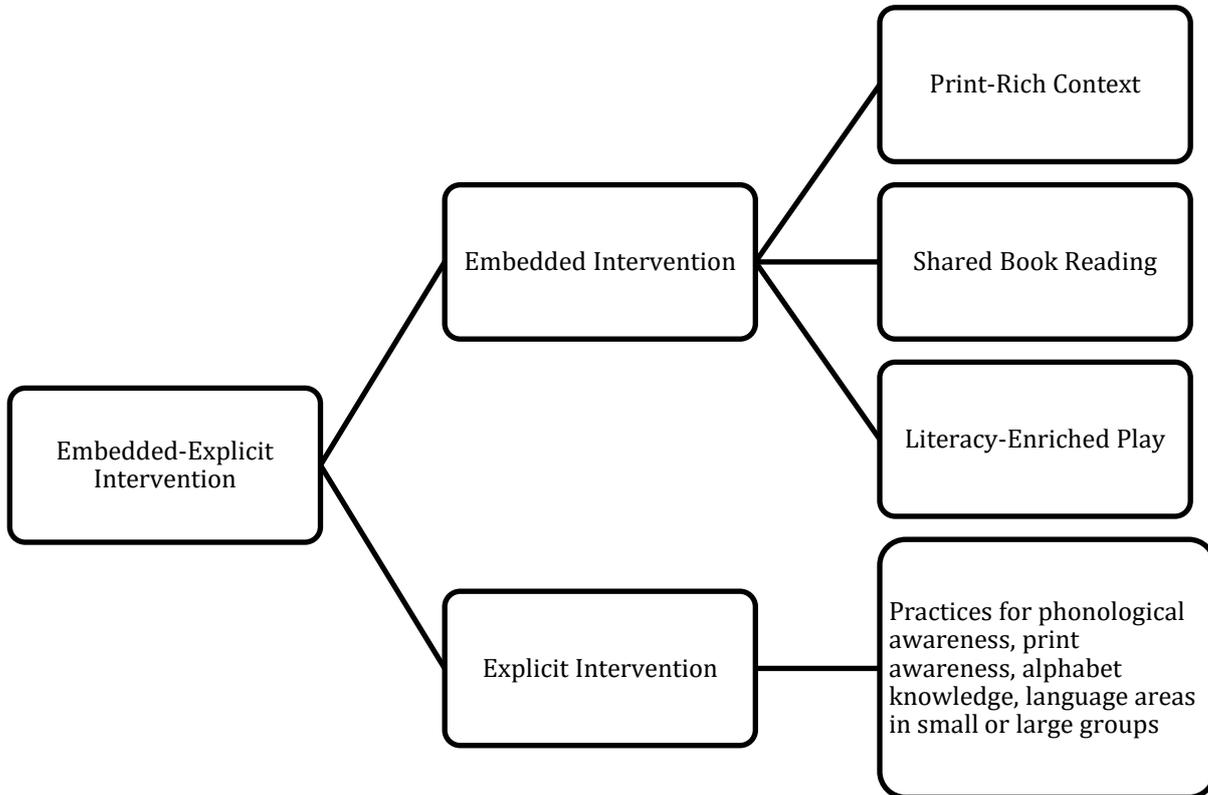


Figure 3. The embedded-explicit intervention approach

Note: This figure was retrieved from "Justice, L. M., & Kaderavek, J. N. (2004). Embedded-explicit emergent literacy intervention I: Background and description of approach. *Language, Speech, and Hearing Services in Schools, 35*(3), 201-211."

2. CONCLUSION, DISCUSSION, AND RECOMMENDATIONS

This study aims to review the concept of early literacy in a conceptual framework and reveal the intervention approaches that support early literacy skills in detail. In this sense, the researchers believe that this article will contribute to the literature in terms of both understanding the concept of early literacy in general and determining the intervention approaches that people can implement.

Recently, researchers have frequently studied the concept of early literacy, which has a very important place in laying the foundations of literacy development, in the literature. Studies on the subject reveal the effect of early literacy skills on language development, the acquisition of literacy skills, and academic achievement (Horowitz-Kraus & Hutton, 2015; Justice, 2006a; Justice et al., 2002; Justice & Pullen, 2003; Schryer et al., 2015; Spira et al., 2005).

In the literature, there are differences regarding the use of the concepts of "emergent literacy" and "early literacy." While some researchers consider these concepts as a whole and use them interchangeably (Rohde, 2015), others use them independently (Justice, 2006a). Upon considering the skills and behavior patterns of the concepts, these concepts should be considered separately. In fact, emergent literacy refers to the natural development process that includes the behaviors that the child spontaneously exhibits starting from infancy, whereas early literacy involves planned practices conducted mostly in the preschool period for the acquisition of certain skills.

When examining the early literacy skills, there are different classifications regarding this topic in the literature (Justice, Sofka, & McGinty, 2007; Mason & Stewart, 1990; Whitehurst & Lonigan, 1998, 2001). However, upon examining the contents of these classifications, one can observe that the difference is mostly in terms of naming, although the terms refer to similar subjects. Conceptually, these skills can be reviewed under the headings of decoding (coding) and understanding in general. It is possible to transfer early literacy skills to children through early literacy interventions (Leach, Scarborough, & Rescorla, 2003; Whitehurst & Lonigan, 1998).

The intervention approaches for early literacy skills can be considered under the headings of approach, content, and intervention environment. Evidence-based intervention approaches can be classified as follows: (a) embedded intervention, (b) explicit intervention, and (c) embedded-explicit intervention that adopts both models. The intervention content involves the areas that found in all intervention approaches: (a) phonological awareness, (b) print awareness, and (c) language/narrative skills. Finally, the intervention environments that support early literacy can be classified as the classroom, home, and other social contexts (Justice et al., 2007; Justice & Kaderavek, 2004; Kaderavek & Justice, 2004; Schuele & Boudreau, 2008).

Some researchers state that embedded intervention is more favorable than explicit intervention in terms of increasing the positive participation of children in literacy. According to this view, the child is the one who initiates the interaction in embedded intervention, and this situation plays a key role in naturalistic teaching (Justice & Kaderavek, 2004; Kaderavek & Justice, 2002). It can be considered that supporting early literacy skills in a natural context will make the process more enjoyable and associated with daily life skills. However, we believe that it is more important to prioritize the needs of the child rather than deciding which of these approaches is more favorable. In some cases, embedded intervention by itself is sufficient for the development of early literacy skills, and in other cases, an additional intervention program is necessary (Justice et al., 2007; Kaderavek & Justice, 2004; Schuele & Boudreau, 2008). Regardless of the intervention approach chosen, we think that the important point is here whether intervention approach includes naturalistic teaching strategies or not. Naturalistic teaching methods came into prominence in the last 20 years as a solution to the generalization problem that emerged because of structured teaching environments and methods used in the education of children with special needs (Allen & Shaw, 2011). The literature indicates that naturalistic teaching is more favorable than structured teaching methods in terms of the children using the knowledge and skills they have learned in daily life (Allen & Shaw, 2011; Charlop-Christy, LeBlanc, & Carpenter, 1999). The naturalistic teaching approach makes use of strategies such as following the interests and leadership of the child and attracting the attention of the child by interrupting or changing existing routines. Additionally, it involves making use of opportunities in daily life activities and introducing teaching in the natural flow of daily life (Allen & Shaw, 2011). As a result of their study, Dunst, Bruder, Trivette, and Hamby (2006) found that early intervention programs based on daily life are more effective and beneficial. Many studies in the literature demonstrate the effectiveness of using naturalistic teaching methods in early intervention practices (Harjusola-Webb & Robbins, 2011; Ingersoll, 2011; Kaiser, Hancock, & Hester, 1998; Kohler, Anthony, Steighner, & Hoyson, 2001; Rakap & Rakap, 2014; Schepis, Reid, Ownbey, & Parson, 2001; Smith, Warren, Yoder, & Feurer, 2004; Snyder et al., 2015). Therefore, we believe that natural teaching strategies can be used in early literacy interventions, even in a structured classroom environment or activity, thus enabling children to better generalize and internalize the knowledge and skills they have acquired. As a general evaluation in light of this information, it is recommended to (a) plan intervention programs that cover all early literacy skills, (b) customize the intervention plan in line with the needs of the child, (c) decide on the approach to be used in line with the needs of the child, and (b) adopt the naturalistic teaching strategies no matter which approach is used to support children's early literacy skills in the best way possible. In this respect, an intervention program prepared to support early literacy skills may include (a) one or more of phonological awareness, print awareness, and language skills, (b) the use of one of the embedded, explicit, or embedded-explicit intervention approaches as a method in the implementation of the program, (c) the implementation of this intervention program in one or more of the home, school, and other social settings.

The Research and Publication Ethics Statement

The researchers adhered to all ethical principles in compiling and transferring the information in the literature to this article, which was written as a review.

Authors' Contribution Rate

All authors of the article contributed equally to the research.

The Statement of Interest

There is no conflict of interest between the authors.

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