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EMERGENT LITERACY DEVELOPMENT: HOME ENVIRONMENT AND PARENTAL BEHAVIOR*

Jelena M. Stevanović** • ORCID: 0000-0001-9917-4622
Institute for Educational Research, Belgrade, Serbia

Emilija N. Lazarević • ORCID: 0000-0002-6453-8489
Institute for Educational Research, Belgrade, Serbia

ABSTRACT

A modern state's socioeconomic and cultural development is significantly shaped by its citizens' functional literacy. Considering that basic functional literacy skills are developed by promoting emergent literacy, our research aimed to examine emergent literacy development through the lens of home environment characteristics as well as children's behavior and parental behavior/practices. The study involved 132 parents of children aged three to five residing in Belgrade. The data were collected using a composite questionnaire and analyzed via descriptive and exploratory statistical analyses. Although the results showed that most parents read with their children, the findings also revealed a negative trend in the use of children's library resources. It was confirmed that children's daily screen time was considerable. Likewise, the findings indicate that the process of promoting different forms of emergent literacy is decisively influenced by parental behavior models that comprise diverse approaches to reading and writing during everyday activities. The conclusion features recommendations that can be particularly useful to education policymakers in designing emergent literacy promotion programs intended for both parents and key actors in the education system.

Key words:

emergent literacy development, home environment characteristics, children's behavior, parental behavior, functional literacy.

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** E-mail: jelena.stevanovic.jelena@gmail.com

INTRODUCTION

Social changes and development have been inextricably entwined with the development and modifications of the concept of literacy, which now encompasses a set of functional and transferable knowledge, skills, and strategies that individuals acquire throughout their lifespan through interactions within their social groups (Pavlović Babić & Baucal 2010). Although the well-established construct of *functional literacy* comprises multiple distinct dimensions, the greatest significance is attributed to linguistic and reading literacy (Stevanović et al., 2023).

Studies examining different functional literacy domains among children and youth in Serbia have revealed that students' functional literacy levels are less than satisfactory. Namely, PISA 2003[1] was the first of six PISA cycles in which Serbian 15-year-olds participated and obtained below-average scores across all domains covered (reading, mathematical, and scientific literacy) compared to their peers from member countries of the Organization for Economic Cooperation and Development (OECD) (Pavlović Babić & Baucal, 2013). Serbian students' achievement levels have remained consistent, with one in three students being functionally illiterate and one in three students being functionally semiliterate (OECD, 2019, 2023; Pavlović Babić & Baucal, 2013). In the Progress in International Reading Literacy Study (PIRLS)[2] 2021, Serbian fourth-graders showed reading literacy levels above the international average. However, when compared with the scale average, their achievements across international benchmarks were below average at all four reading literacy levels (Ranđelović et al., 2023). Furthermore, studies have found evidence of the reading crisis and youth's insufficient interest in reading at all education levels, primarily in the context of reading and reading habits related to school responsibilities (Ilić et al., 2007; Krnjaić et al., 2011; Stevanović et al., 2020).

In short, the past two decades have seen mounting evidence of Serbian students' insufficiently developed functional literacy. This highlights the need for changes in the education policy and the overall approach to education, including education quality improvement and a focus on knowledge application rather than

1 PISA (The Programme for International Student Assessment) – the Programme for International Assessment of Educational Achievement – of the Organisation for Economic Co-operation and Development (OECD) – is an international study that examines the achievements of 15-year-old students in the domains of reading, mathematical, and scientific literacy.

2 Progress in International Reading Literacy Study (PIRLS) is an assessment conducted by the International Association for the Evaluation of Educational Achievement (IEA) that measures reading literacy development among fourth-graders. PIRLS 2021 was the first cycle in which Serbia was a participating country.

only knowledge transfer and acquisition. Furthermore, this raises the issue of the necessity of promoting emerging literacy development.

The Concept of Emergent Literacy

Research published in the past three decades has emphasized the importance of a stimulating home learning environment for early competence development in children (Bradley et al., 1994; Melhuish et al., 2008; Molfese et al., 2003; Niklas & Schneider, 2017; Niklas et al., 2020; Sénéchal & LeFevre, 2002). As early as 1978, Vygotsky's theory promoted the idea that experience, knowledge, and learning depend on the child's surroundings, context, and interactions with others. These interactions allow the child to acquire language, concepts, symbols, and other cultural artefacts and tools. In the family environment, parents act as role models whose attitudes significantly affect young children and shape their home learning environment (Bingham, 2007; Niklas et al., 2015; Skibbe et al., 2008).

Although the environment has been widely recognized as a major factor in the development of linguistic competence and functional literacy in general, affecting young children's later accomplishments, Serbian researchers have insufficiently explored the concept of emergent literacy development at home or the home literacy environment (HLE), with only a few authors exploring its significance, addressing the key parameters in this domain, and providing data on parental beliefs and practices (Anđelković, 2012; Mitrović, 2010; Radišić & Ševa, 2013, 2015; Ševa, 2019; Ševa & Radišić, 2013). Likewise, domestic literature provides no information on parental behaviors and attitudes towards emergent literacy development in the family environment. Secondary analyses of TIMSS 2015 data have merely provided a glimpse into emergent literacy development in this part of the world (Ševa, 2019). Research on parental attitudes towards the HLE has identified four parent profiles, with only one in three parents belonging to the *educator* profile gathering parents who have developed strategies for reading with their children (for more information, v. Radišić & Ševa, 2013; Ševa & Radišić, 2013). This finding indicates that a limited number of Serbian parents recognize the importance of emergent literacy development, realizing that children start acquiring literacy knowledge and skills well before receiving formal education (Bingham et al., 2017).

Considering that emergent literacy development at home can contribute to better functional literacy at later developmental stages, it is crucial to shift the

focus of child literacy development to the early years. Emergent literacy can be defined as a composite concept encompassing knowledge and skills associated with the development of linguistic competence, metalinguistic awareness, and written language in children aged zero to five (Teale & Sulybz, 1986, as cited in Ševa, 2019). The home literacy environment (HLE) is an umbrella term gathering diverse literacy-related activities in which parents engage with their children (Burgess et al., 2002; Dowdall et al., 2020; Inoue et al., 2018; Niklas & Schneider, 2017) and has been linked to the family status, which includes parental education levels and the family's socioeconomic status (Carroll et al., 2019). To date, different theoretical models of the HLE have been proposed. According to the model formulated by Burgess et al. (2002), the HLE comprises both active and passive aspects of components related to reading, attitudes, resources, and activities at home. The active aspect involves reading books together, whereas the passive aspect refers to the presence of children's books in the home environment, access to a library, or setting a good example for children by reading books for pleasure. The HLE model proposed by Sénéchal and LeFevre (2002) features both informal (reading together with a focus on the meaning of the text) and formal literacy-related activities (teaching children the basic literacy concepts, such as code, letter knowledge, and orthography). These two activity types are not interrelated and they affect distinct reading-related processes (Liu et al., 2018). Likewise found in the literature is a broader theoretical perspective on the HLE that recognizes three aspects of reading-related activities: access to printed materials, reading interests, and parents' reading habits (Esmaeeli et al., 2018, 2019).

Analyzing the literature, it can be observed that different activities that parents implement in the home environment (HE) diversely affect the development of emergent and, subsequently, functional literacy. Studies have shown that reading books at an early age can predict later oral language skills, affect reading comprehension (Sénéchal & Lefevre, 2002), contribute to vocabulary development (Inoue et al, 2018; Torppa et al., 2022), and influence children's reading in grade three (Sénéchal & Lefevre, 2002). Code-related formal activities have been associated with reading in the sense of letter knowledge (Georgiou et al., 2021; Liu et al., 2018), whereas the development of phonological awareness has been shown to contribute to the process of reading skill development (Catts et al., 2015; Sénéchal & LeFevre, 2014; Sénéchal et al., 2017).

In addition to code- and meaning-related activities, certain researchers argue that access to literacy resources, which is commonly operationalized as the number

of children's books at home, constitutes a separate component that independently predicts children's language and literacy, beyond the effects of code- and meaning-related activities (Zhang et al., 2020). Studies have shown that families with higher socioeconomic status and education levels have greater access to literacy resources compared to families with lower socioeconomic status and education levels (Liu et al., 2018). Furthermore, parents who are more interested in reading tend to ensure that there are more reading materials at home, read to their children at an early age, and read to them more frequently than parents who are disinterested in reading (Weigel et al., 2006).

Even though the HLE is a major factor in both child development and educational outcomes, domestic research has seldom explored this concept. Considering that Serbian students' functional literacy levels have proven to be unsatisfactory, this study sought to catalyze the debate on the significance of emergent literacy development in our midst and contribute to all actors' better understanding of this construct's potential in children's early development.

This paper presents a segment of the results of a larger research project focusing on emergent literacy development in the home environment among children aged three to five, aiming to explore the role of the family in the HLE through the lens of child behavior, family HE characteristics, and parental behavior/practices and attitudes. Specifically, the research presented in this paper aimed to examine HE characteristics and children's and parents' behavior in the context of HLE.

METHOD

Sample and procedure. The data were collected on a convenience sample of 132 parents (121 mothers, 91.7%, and 11 fathers, 8.3%) from two Belgrade municipalities, Palilula (19%) and Zvezdara (81%), whose children attended early childhood education institutions: Sunflower, Ladybug, Doe, and Little Cloud. The parents filled out the questionnaire voluntarily and anonymously. The research was conducted during 2023, upon obtaining approval from the Ethics Committee of the Institute for Educational Research and the principals of the early childhood education institutions attended by the focus children.

The analysis of sociodemographic characteristics encompassed data on parents' age, education level, occupation, and time spent at work, as well as the number of

children in the family. Mothers' mean age was 35.81 years (SD=4.92), whereas fathers had a slightly higher mean age of 38.60 years (SD=5.04). A total of 50% of mothers and 31.5% of fathers held a university degree, 15.9% of mothers and 18.1% of fathers held a college degree, whereas 34.1% of mothers and 48.5% of fathers were high school graduates. The analysis of time spent at work showed that mothers worked for 8.47 hours a day (SD=1.49) on average, while the mean time fathers spent at work was somewhat longer and amounted to 9.84 hours a day (SD=1.58).

Children in the focus of our research (aged three to five years) had a mean age of 3.72 years (SD=0.98). The sample was gender-balanced, comprising 51.9% boys and 48.1% girls. The average daily time spent at the kindergarten was 7.7 hours, with the most common and median number of hours being eight.

Instrument. The questionnaire employed comprises two parts, the first of which was constructed by Ševa and Radišić (2012) for the purpose of exploring emergent literacy, and the second of which includes the Serbian adaptations (Radišić & Ševa, 2013) of the Home Literacy Practices Inventory (Wu & Honing, 2010) and the Parent Reading Belief Inventory – PRBI (DeBaryshe & Binder, 1994).[3] This composite questionnaire features several segments that correspond to a broader concept of the HLE. The first segment collects sociodemographic data on the parents (age, gender, education level, occupation, and time spent at work, along with the number of children in the family) and the children (year of birth, gender, and time spent at the kindergarten) and evaluate children's behavior at home and the kindergarten as well as HE characteristics using closed-ended (e.g., with whom children watch cartoons and other content, the age at which they started reading books, and the number of children's books available at home) and open-ended questions (e.g., the parents are asked to write down favorite cartoons and books). Parent responses are also evaluated on two five-point Likert-type scales.

The second and third segments pertain to examining parental practices/behavior and beliefs regarding their children's emergent literacy development in the home environment. In this paper, we present the findings obtained using the first scale, the Home Literacy Practices Inventory – HLPI (Wu & Honing, 2010), which comprises 15 items measuring the frequency of parental behaviors related to emergent literacy (e.g., taking their children to the library or reading a book or textbook). Parent responses are evaluated using a Likert-type scale.

3 For more information on the psychometric characteristics of the Parent Reading Belief Inventory – PRBI (DeBaryshe & Binder, 1994), an evaluation scale measuring parental beliefs about emergent literacy, associated parental practices, and parents' sense of self-efficacy in the role of their children's teachers, see Radišić and Ševa, 2013.

Data analysis. Descriptive (AS, SD, Min and Max, Mod) and exploratory statistical analyses were conducted. The effects of sociodemographic factors and children's habits (e.g., reading time) on parental behavior and attitudes were assessed via linear and quantile regressions, supplemented with a t-test and correlations that served to determine the differences and links between the key variables. The data were processed using principal component analysis (PCA), regression analysis, independent samples t-test, variance analysis, and correlation techniques (Pearson and Spearman coefficients), depending on the nature of the variables and data distribution. The parental behavior analysis was conducted with the application of PCA, the appropriateness of which was confirmed via the Kaiser-Meyer-Olkin and Bartlett's tests. All analyses were conducted using SPSS and R software.

RESULTS AND DISCUSSION

Home Environment Characteristics

Emergent literacy development is decisively shaped by the family environment, which enables children to acquire specific precursors of reading and orthographic skills and linguistic competence, all contributing to the development of crucial literacy skills before the start of formal education (Niklas & Schneider, 2013). HE characteristics were explored through the lens of three aspects that constitute separate though interconnected constructs of emergent literacy in the HE: 1) books – cultural capital); 2) reading frequency in the HE – cultural practice; and 3) the frequency of activities that promote literacy development – cultural practice (Niklas & Schneider, 2013).

Books as HE resources – cultural capital. Analyzing 18 project sites of the Save the Children humanitarian organization, it was established that the number of books in the HE was a moderately strong predictor of early reading (Zuilkowski et al., 2019). Home resources are determined by the family's socioeconomic status and parents' education levels, and they are embedded in sociocultural practices and values (Dulay et al., 2018). In our study, the analysis of the HE from the perspective of access to literacy resources operationalized as the number of children's books at home showed that the largest number of families (over 42.4%) ensured that their

children had access to between 21 and 40 children's books in the HE. More than one in three families (36.4%) had between one and 20 children's books at home, whereas fewer families boasted larger collections (12.1% had 41–60 books; 6.8% had over 60 books, and only 2.3% had more than 81 books). Most children in our research only had access to rudimentary book collections, which is a significant finding considering that children with few books in the HE can later have difficulties developing reading and writing skills (Levy et al., 2006). The results are indicative of a decline instead of an increase in the number of children's books in Serbian households, a trend that can certainly be ascribed to the advance of digital technologies, which are currently preferred to printed materials. This is evidenced by the fact that a decade ago, Ševa and Radišić (2012) reported richer HEs in Serbia, with more than one in two families possessing collections of 21 to 60 children's books.

Reading activity in the HE – cultural practice. Parent-child shared reading habits constitute an HE component that crucially contributes to literacy development and can be further divided into the start, frequency, and quality of shared reading (Fletcher & Reese, 2005). The largest number of parents in our study started reading to their children at a mean age of 1.48 years, while the most common and median age was one year. This finding indicates that parents have started reading to their children at an earlier age, having in mind that a decade ago, most parents started reading to their children after their second birthday and fewer than one in three parents introduced this practice between their children's second and third birthday (Ševa & Radišić, 2012). Numerous authors have emphasized that shared reading should be introduced as early as possible and integrated into the family's daily routine (Niklas et al., 2016; Wirth et al., 2020). In our sample, the majority of children (84.1%) usually read books with their mothers. Significantly less common was shared reading with the father (6.8%), brother/sister, and other adults (4.5%). Earlier research in Serbia has also found that children are most commonly read to by their mothers (Radišić & Ševa, 2012). Furthermore, studies conducted in other countries have likewise determined that mother-child reading activities constitute the most common form of shared reading (Liss et al., 2013). A highly interesting result obtained in our research showed that most children (68.2%) asked to be read to often or very often during the week, most commonly at bedtime (87.4%), whereas fewer than one in three children rarely or hardly ever showed such initiative (31.8%). This finding is in line with the fact that 60% of parents stated that they read bedtime stories to their child every day or nearly every day, whereas 62% of parents claimed

that three times a week, they also read to their children in other situations, the most prominent of which was daily rest time (9%). Shared reading, which was a common practice in our sample, bears great importance as it creates opportunities for parent-child conversations about book characters' socioemotional experiences, which directly contributes to children's socioemotional learning (Kozak & Recchia, 2019; Rose et al., 2018). Parents most commonly named fairy tales as favorite children's books. Analyzing the titles parents listed as favorites (the corpus featured over 200 titles), there was a notable absence of books that could promote emergent literacy development. Likewise, parents mentioned no poetry books, even though the development of the phonological skill of rhyme recognition through poems significantly affects the acquisition of reading and writing skills (Lazarević, 2014).

Activities that promote literacy development – cultural practice. The frequency of library visits has also been associated with children's emergent literacy development (Griffin & Morrison, 1997; McElvany et al., 2009). In our sample, 47.7% of parents were familiar with the existence of children's libraries within a three-mile radius, while more than one in two parents (52.3%) expressed uncertainty or claimed there were no children's libraries nearby. Parental attitudes towards library resources were confirmed by the frequency of library visits. A surprising 87.1% of parents and focus children never visited children's libraries, whereas only a small portion of the sample (12.9%) did it sometimes or more often, which is indicative of a poor practice of using library resources regardless of their physical availability.

Theatergoing is another form of activity that can potentially contribute to children's literacy development. Although the majority of parents (95.5%) stated that there were children's theaters in their city, 31.1% of parents never took their children to the theater, whereas 68% of parents took their children to see a play once or twice a month.

Children's Behavior in the Home Environment

The analysis of data on children's behavior in the HE focused on two aspects: 1) the quality and quantity of children's engagement within leisure activities, and 2) their initiative in seeking literacy-related activities.

Leisure activities. The results showed that when at home, children most commonly watched cartoons on television (M=2.95; SD=0.92), listened to music (M=2.88; SD=1.17), and played board games (M=2.40; SD=1.01). They spent less

time watching feature-length animated films (M=1.91; SD=0.75) and educational and entertainment programs for children such as Brainbox (orig. Kefalica), Blue Bird (orig. Plava ptica), and Cubie (orig. Kockica) (M=1.82; SD=0.86) and listening to audio stories (M=1.59; SD=0.77). The least common activities included joining parents in watching television programs for adults such as the news and reality shows (M=1.08; SD=0.35) and playing video games on the computer (M=1.16 SD=0.48). The frequency of these activities during the week is shown in Table 1.

TABLE 1. Children's behavior at home, leisure activities during the week

Activities %	Never (almost never)	1 to 3 times a week (up to 2 hours a day)	4 to 5 times a week (up to 2 hours a day)	Up to 2 hours every day	More than 2 hours every day
Cartoons	4.58	30.53	31.30	32.82	0.76
Feature-length animated films	27.48	59.54	7.63	5.35	0
Listening to music	10.61	32.58	25.00	21.97	9.85
Playing video games	88.64	6.82	4.55		
Children's educational programs	39.39	46.97	6.82	6.06	0.76
Television programs for adults	93.18	6.06	0.76		
Playing board games	19.70	37.88	26.52	14.39	1.52
Listening to audio stories	52.27	27.27	13.64	2.27	4.55

According to the results, 39.58% of children spent most of their time at home (up to two hours every day or nearly every day) in front of the television set, watching cartoons. This finding is hardly encouraging, especially in light of studies reporting that children's screen time tends to increase with age (Linn et al., 2012). However, it is also unsurprising, considering that the results of the 2017 Common Sense Census showed that the average daily screen time for children aged zero to eight amounted to two hours and 19 minutes (Rideout, 2017). For most children in our research, playing computer games (88.64%), watching television programs for adults (93.18%), and listening to audio stories (52.27%) were not prominent screen-time activities. Although media content preferences vary depending on gender, age, and the family's cultural and socioeconomic status (Heim et al., 2007), other studies have also reported the dominance of watching television in relation to other forms of screen time (Ilišin et al., 2001; Rideout, 2017). A small number of children (6.82%) watched children's educational and entertainment programs for up to two hours every day or nearly every day, with parents listing the following programs as favorites: Brainbox

(orig. Kefalica; 28.57%), Brainsters (orig. Mozgalići; 16.67%), and Blue Bird (orig. Plava ptica, 16.67%). The considerable daily screen time is particularly worrying when coupled with the fact that children mostly watched television alone, with a low level of parental involvement in the activity. The majority of children (62.5%) usually watched educational and entertainment programs on their own, whereas about one in three children (30.15%) did it in the company of brothers/sisters or friends. Only a small number of children (7.35%) watched such content together with their mothers or other adults. Research has shown that parents' active participation in these activities is a crucial prerequisite to using such content for creative purposes and educational processes (Benedetto & Ingrassia, 2020), while also enabling control over digital media's negative effects (Rasmussen et al., 2016). The present situation in our part of the world is a source of much confusion for parents. On the one hand, it is recommended to restrict the use of digital media at the preschool age. On the other hand, their use for watching quality educational content in interaction with an adult is encouraged as it can help improve preschoolers' academic skills (Kostyrka-Allchorne & Simpson, 2017) and favorably affect their cognitive development (Anderson & Subrahmanyam, 2017). The low level of parental involvement in such activities indicates that it is necessary to further educate Serbian parents on the creative use of television/computers in adult-child interaction in a manner that supports emergent literacy development.

Further analyses focused on examining the relationship between the time children invested in *book-related activities* and their time devoted to *leisure activities* involving media content in the HE. The application of Pearson correlation revealed a weak and statistically nonsignificant negative link between these two activity types ($r=-0.016$, $p=0.859$), which suggests that there was no significant correlation between children's screen time and the time they spent reading books. However, findings indicate that it is necessary to limit children's use of digital media, as excessive screen time interferes with activities crucial to early childhood development (Linn et al., 2012).

Examining the potential links between families' cultural activities and children's media content preferences, it was established that there were statistically significant positive correlations between: the frequency of children's library visits and watching educational and entertainment programs ($r=0.182$, $p=0.036$) and listening to audio stories ($r=0.259$, $p=0.003$) and the frequency of going to children's theaters and watching educational and entertainment programs ($r=0.272$, $p<0.001$).

The obtained results suggest that children whose parents take them to the library more often and expose them to specific cultural content (e.g., by going to the theater together) also show a greater inclination towards watching educational media content in the HE. This finding could indicate that parents' behavior and habits in the domain of cultural activities affect the selection of the content that children watch. However, as confirmed by our results, watching educational programs without parents' involvement does not create the conditions necessary for emergent literacy development in the HE. Considering that the home media environment is more easily established during early childhood than later in life, it is crucial for parents to understand how the media environment they create affects children's digital media use, the way children learn from digital media, and the way these media affect children's development (Canadian Paediatric Society, 2017; Piotrowski et al., 2015).

Children's initiative in seeking literacy-related activities. These data were examined from the perspective of the construct of emergent literacy, which refers to the gradual process in which children exhibit spontaneous and independent interest in written content (focus attention on books, pretend to read despite the lack of letter knowledge while holding the book upside down, and enjoy children's songs and reading and telling stories) due to exposure to written content (Peretić et al., 2015). The obtained results showed that during the week, more than one in two children (57.86%) never sought to listen to audio stories, whereas 30% of children only sometimes expressed this interest. The vast majority of children (86.43%) never asked to be taken to the library, which is in line with the finding that nearly 87.1% of parents never took their children to libraries. These findings confirm that activities that parents do not implement with their children likewise do not pique children's interest, which in turn confirms that parental behavior and habits influence the formation of children's habits. The analysis further showed that often, four to five or more times during the week, more than one in two children asked questions about the book read (68.57%); played with books/magazines, pretending to read (67.86%); scribbled, attempted or pretended to write (74.28%); "read" or pretended to read books on their own (63.57%), and asked parents to read them a story/book (73.57%). These findings are encouraging, as these are precisely the activities that significantly support emergent literacy development in the HE, and crucially, it was children who showed interest in them and initiated them. Even though such interests among children of this age spontaneously emerge with development, in the sense of emergent literacy, research has shown that parental reading behavior affects

and promotes their preschool children's interest (Hume et al., 2015) and predicts emergent literacy skills (Frijters et al., 2000).

Considering that children's gender, parents' education levels, and the time parents spend at work can significantly affect the distribution of family resources and the forms of entertainment in the HE that could potentially promote emergent literacy development in the HE, the following analyses were conducted:

Analysis of children's gender and specific variables. The results of the independent samples t-test revealed that there was no statistically significant difference between girls and boys in terms of screen time (t=1.459, p=0.147), even though boys spent somewhat larger amounts of time enjoying video content compared to girls. When it comes to the time devoted to reading books, the difference in favor of girls was not statistically significant at the conventional level of 5%, but it did show borderline significance (t=-1.838, p=0.069), which could point to girls' tendency to more frequently engage in reading activities. The obtained finding is aligned with the common belief about children's gender-based affinities, according to which boys prefer digital media and girls give preference to visual media.

Analysis of parents' education levels and time spent at work. Parents' education levels significantly correlated with children's media habits. Namely, the children of more highly educated parents spent less time in front of the screen (r=-0.238, p=0.006) and more time engaging in book-related activities (r=0.251, p=0.004). Parents' education levels can shape their adopted media approach, which has implications for children's digital media use. Specifically, it is less likely for more highly educated parents to believe that television can have positive effects on children's reading, oral, and mathematical skills, which is why they are less likely to use it as an educational tool (Wartella et al., 2014). Conversely, the time parents spent at work showed no significant correlations with children's screen time (r=0.112, p=0.219) and the time children devoted to books (r=-0.054, p=0.551). These findings indicate that parents' education levels more decisively shape children's cultural and educational habits compared to time spent at work. Research has yielded strong evidence of links between parents' education levels, HE characteristics, language, and literacy. Education level has been shown to predict children's learning outcomes (Aturupane et al., 2013; Yu & Thomas, 2008) and correlate with HE characteristics (Alcock et al., 2010; Dulay et al., 2018).

Parental Behavior in the Home Environment

What do parents do to support literacy development? The examination of parental practices that aid emergent literacy development in the HE involved the application of the methods of grouping and validating latent dimensions. Principal Component Analysis (PCA) of 15 items was used to analyze parental behavior in the domain of emergent literacy promotion. The application of this method was justified, based on a Kaiser-Meyer-Olkin (KMO) index of 0.74, indicating an adequate sample size, and a significant Bartlett's test of sphericity ($\chi^2(105)=602.16$, $p<0.0001$), showing that inter-item correlations justified factor reduction. Based on Horn's parallel analysis (Horn, 1965), three components were retained. Following the varimax rotation, the obtained components were interpreted in the following manner: Component 1 (C1) – *Habitual activities*: parental behavior: visiting libraries and purchasing books and children's books in children's presence; Component 2 (C2) – *Activities indirectly affecting literacy development:* parental behavior: writing emails, letters, plan notes, and shopping lists in children's presence, browsing leaflets and reading books, textbooks, reports, or magazines/newspapers in children's presence, browsing magazines with children, reading instructions or product labels, and reading children's books to children during the day or at bedtime; and Component 3 (C3) – *Direct instruction:* parental behavior: teaching children how to write words and how to read words.

In terms of HLE-related parental behavior, the results revealed diverse frequency patterns. Habitual activities (C1) had a mean value of 1.76 (SD=0.59), meaning that on average, such activities were practiced "sometimes" and "often", with the mean value closer to the lower end of the range. Indirect literacy development (C2) showed a higher mean frequency level, 2.20 (SD=0.64). Such activities were more common in families' daily lives and approached the level of "often". Direct instruction (C3) had the highest mean value, 2.33 (SD=0.88), indicating that such activities were practiced very often in one portion of the sample.

In determining potential links between these three parental behavior components on the one hand and parents' age, education levels, and working hours, along with children's screen time on the other, Pearson correlations revealed the following:

C1 activities showed statistically significant positive correlations with the time children devoted to books ($r=0.336$, $p<0.001$), which indicates that parents who

more often take their children book shopping or to the library have children who more commonly engage in book-related activities.

C2 activities likewise significantly positively correlated with the time children devoted to books ($r=0.509$, $p<0.001$). The obtained finding indicates that parents who more commonly incorporate reading and writing into various daily activities also spend more time reading with their children.

C3 activities showed weaker although statistically significant positive correlations with the time children devoted to books ($r=0.194$, $p=0.026$).

All components of parental behavior most consistently and significantly correlated with the time children devoted to books, whereas other characteristics of parents and children did not significantly affect behavior patterns in the context of the HLE. It has been established that diverse reading- and writing-related parental behavior in the HE contributes to children's literacy development (Burgess et al., 2002) and general interest in books (DeBaryshe, 1995). Numerous studies have shown that parents with lower education levels are less likely to engage in shared reading (Curenton & Justice, 2008) and more inclined towards direct instruction, that is, they prefer code-focused formal activities (Lynch et al., 2006).

Further analysis of Pearson correlations between the three dimensions of parental behavior and five specific forms of children's reading behavior confirmed the existence of several significant and positive links. All three components of parental behavior correlated with certain forms of children's behavior in the domain of literacy development that they initiated, with C2 – activities indirectly affecting literacy development – showing the strongest and most consistent correlations.

C1 – Habitual activities significantly positively correlated with: *asking questions about the read books* ($r=0.225$, $p=0.009$), which indicates that children whose parents nurture these habits more commonly show interest in the content of the material read; *playing with books and magazines* ($r=0.183$, $p=0.041$), which suggests a higher presence of books in children's everyday life; *scribbling and pretending to write* ($r=0.261$, $p=0.003$), which could be a reflection of the parental behavior model; *behavior in which the child "pretends to read"* ($r=0.294$, $p=0.001$), which could be an indicator of early development of identification with reading; and *asking to be read to* ($r=0.252$, $p=0.004$), meaning that these children more commonly initiated reading activities.

C2 – Activities indirectly affecting literacy development showed the strongest and consistently significant correlations with all forms of children's behavior: *asking*

questions about the read content (r=0.394, p<0.001), *playing with books/magazines* (r=0.469, p<0.001), *scribbling and attempting to write* (r=0.432, p<0.001), *pretending to read* (r=0.523, p<0.001), and *asking to be read to* (r=0.294, p=0.001).

The obtained results suggest that it is precisely parental behavior models that involve different approaches to reading and writing during everyday activities (C1 and C2), even without the children's direct involvement, that are crucial for promoting spontaneous interest in books and various forms of emergent literacy. Studies have shown that parents' interest in reading and reading habits are strongly associated with access to printed materials, moderately associated with reading activities at home, and significantly linked to children's code-related emergent literacy (Esmaeeli, 2024). It has also been established that the HLE is positively affected by children's involvement in diverse writing activities such as making shopping lists, filling out forms, and reading instructions (Crain & Dale, 1992). Different forms of parent-child interaction mediated by symbolic material can aid the improvement of children's oral skills, cognitive development, and the inception of elements of emergent literacy (Bowman et al., 2001) Likewise, the multifariousness of parents' reading behavior that creates room for shared reading and discussions about books can predict children's interest in reading (Georgiou & Zhang, 2024) and encourage positive attitudes towards reading among preschoolers (Hume et al., 2015). Flack et al. (2018) found that the way stories were read (reading style) was more important than the person reading them. For instance, dialogic reading styles that encourage additional interaction with the text, such as speaking about the text, using open-ended questions, repetition, and methods of showing pictures during shared reading activities, are recommended as fruitful strategies for effective literacy development at home.

C3 – Direct instruction significantly and positively correlated with: *asking questions about the read content* (r=0.272, p=0.002), which confirms that children who are directly taught reading/writing skills at an early age process book content more commonly and profoundly; *playing with books and magazines* (r=0.179, p=0.041); *scribbling and writing* (r=0.277, p=0.001), which was expected considering the nature of the activity; and *pretending to read* (r=0.176, p=0.044), which could be indicative of motivation development and the adoption of reading-related behavior through learning. However, there was no significant link with *asking to be read to* (r=0.138, p=0.115), which suggests that direct instruction does not necessarily affect children's initiative in seeking shared reading experiences. Multiple studies

have established that parents' direct instruction in the HLE aids the development of phonological awareness and letter knowledge in children (Frijters, et al., 2000; Levy et al., 2006; Niklas et al., 2015). For instance, Sénéchal and Young (2008) found that the aspect of parental instruction directly predicted letter knowledge in kindergarten-aged children and reading fluency among fourth-graders, whereas exposure to storybooks directly predicted vocabulary development in kindergarten-aged children and indirectly predicted reading comprehension among fourth-graders. Parents' direct instruction has been recognized as an aspect of literacy development that contributes to children's reading comprehension, that is, reading competence at later developmental stages (during formal education) as well as orthography in all languages (Inoue et al., 2020; Liu et al., 2018; Sénéchal & LeFevre, 2014; Torppa et al., 2022).

CONCLUSION

Exploring the promotion of emergent literacy development through the lens of HE characteristics, children's behavior, and parental behavior/practices, this study revealed that most three-to-five-year-olds only had access to rudimentary children's book collections. Numerous parents in our sample read books with their children, which is highly significant as this form of parent-child interaction is one of the key drivers of positive emergent literacy development. Likewise, parents most often listed fairy tales as favorite children's books, whereas poetry was not mentioned in their responses. Although the selection of traditional fairy tales contributes to the development of social and emotional values in children, it is necessary to further educate parents on the value of new titles that help set the stage for the transition from mere mechanical recitation to an interactive process and familiarize them with the significance of poetry for rhyme development, which constitutes one of the key factors in literacy development (Ševa, 2019). The results confirmed the negative trend in the use of library resources, as the overwhelming majority of parents did not take their children to children's libraries despite their physical availability. The findings further revealed that children spent a large portion of their day in front of the screen, mostly alone. There was no statistically significant difference between girls and boys in this domain. Likewise, the results showed that activities that parents did not implement with their children did not pique children's interest,

which in turn confirms that parental behavior and habits influence the formation of children's habits. Hence, it is not surprising that the children of parents with higher education levels spent less time in front of the screen and more time engaging in activities involving books. These findings confirm that parental education level constitutes a more significant factor in shaping children's cultural and educational habits compared to time spent at work. On average, the most common HLE-related parental behavior included directly encouraging reading habits, followed by activities that indirectly affect literacy development. Least prevalent were activities that stimulate the formation of reading habits through behaviors involving books, children's libraries, and the theatre. Inter alia, the obtained findings indicate that it is parental behavior models that contain different approaches to reading and writing during everyday activities, even without children's direct involvement, that have the key role in the process of encouraging spontaneous interest in books and different forms of emergent literacy.

Although the obtained findings are not generalizable due to limitations stemming from sample size, we believe that the results of this empirical research are noteworthy and suitable for deriving preliminary conclusions about the promotion of emergent literacy and parental behavior in this domain in our midst. These findings can be particularly insightful at the general, national level, specifically for social and education policymakers. Namely, relevant education policies should be oriented towards designing and implementing programs that allow parents to learn more about ways to involve their children in literacy activities at home. Due to the fact that numerous studies have shown that the early HLE significantly affects children's later reading and reading literacy development, the past several decades have witnessed the development of diverse emergent literacy programs across the world. Such projects are known as family literacy programs and their aim is to improve the quality and frequency of young children's literacy experiences at home and modify parents' literacy-related daily routines (Fikrat-Wevers, 2021; Niklas & Schneider, 2017). Whereas foreign literature features a broad range of family literacy programs explored in effects studies, which have in turn been summarized in numerous metanalyses examining program characteristics and differentiating between characteristics related to program content and nature and features pertaining to program organization and implementation (Lonigan et al., 2008; Manz et al., 2010; van Steensel., 2012), in our part of the world, the very concept of emergent literacy development has been insufficiently researched and programs that would encourage

parents to engage their children in stimulating activities at home are, in fact, non-existent. Moreover, there is a pressing need to further educate parents on matters such as shared/dialogic reading techniques and phonological awareness support methods. This would allow them to have a more active role in their children's literacy skill development and implement more meaningful and comprehensive literacy practices in the HE.

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