Investigating the Relationship between Home Literacy Environment (HLE) Activities and Emergent Literacy Skills Development

Kartika Nuswantara[1]*, Eka Dian Savitri[1], Hermanto[1], Ni Wayan Suarmini[1], Gita Widi Bhawika[1]

[1] Institut Teknologi Sepuluh Nopember (ITS) Surabaya, Indonesia

*Corresponding author's email: kartikanuswantara.its@gmail.com

https://orcid.org/0000-0003-1152-9834

https://doi.org/10.54855/ijte.22237

Received: 23/04/2022 Revision: 28/05/2022 Accepted: 30/05/2022 Online: 16/08/2022

ABSTRACT

Early intervention is thought to be necessary to stimulate children's word knowledge. Children will be unable to encode and decode inputs on their own without adult assistance. As a result, interventions play a critical role in literacy development at all levels, especially during the emerging literacy phase, and parents are often the first to cast such interventions. The goal of this study is to identify the types of HLE Activities that parents regularly use, as well as the characteristics that contribute to the success of such activities in supporting the development of emerging literacy abilities in preschoolers. The current study surveyed 107 parents with preschoolers at home using a descriptive approach. The HLE activities in this study are limited to parent-child contact, phonological awareness, and decoding skills. The activities that parents most commonly carry out to promote the growth of emergent literacy skills are Phonic Awareness, which involves pointing out letters in isolation and words, and Decoding Skills, which involve introducing letters/words and their sound or pronunciation in songs or other fun ways. Then, in order to ensure the success of the implementation, parental education becomes a crucial aspect. Other issues, such as who raises preschoolers at home and infrastructure availability, become non-negotiable factors in determining the degree of HLE implementation. Overall, the study proposes that further research be done to help parents with less education and non-kinship caregivers practice HLE to help preschoolers develop their emergent reading abilities.

Keywords: HLE; Emergent literacy skills; preschoolers, phonological awareness, decoding skills.

Introduction

One of the factors that have an impact on emergent literacy development is the home literacy environment (HLE). Children learn their first language in their homes. Furthermore, families, particularly mothers, are the primary caregivers that provide linguistic exposure to their

CITATION | Nuswantara, K. et al. (2022). Investigating the Relationship between Home Literacy Environment (HLE) Activities and Emergent Literacy Skills Development. *International Journal of TESOL & Education*, *2*(3), 96-113. DOI: https://doi.org/10.54855/ijte.22237

children. Children's decoding skills and phonological awareness, as well as spoken language skills, are elicited by mothers' conversations. Overall, though, children cannot become read by themselves. Niklas & Schneider (2013) and Vuong et al. (2021) suggest that early intervention is needed to stimulate children's word knowledge. Without assistance from adults, children will be unable to encode and decode inputs on their own. It is investigated in this paper how children's word knowledge is subsequently developed by providing children with the in-depth meaning of words, followed by the establishment of strings of semantic networks that become stronger predictors for later decoding and reading comprehension, allowing children to become critical readers at the end of the process. As a result, interventions become extremely important in literacy development at any level, particularly during the emergent literacy phase, and parents are the first actors to cast such interventions.

Emergent literacy development does, in fact, establish the groundwork for future literacy growth. However, increasing children's language skills cannot be done alone by preschool teachers. Nevertheless, the teachers' time and space in the classroom limit their involvement with children. Therefore, parents who have an abundance of time and space at home to spend with their children must take a greater role. As a result, HLE is the primary location where preschoolers learn and develop their language skills with their parents. Prior to formal schooling, parents are the primary educators of their children. Because not all parents can provide supportive HLE, Tong et al. (2021) have looked into some prospective places where parents might be trained to improve their children's language and literacy. They review parent-training studies of children's language and literacy in three contexts: parent-child book-reading, parent-child conversations, and parent-child writing in their article and find that parent-training programs, specifically shared book-reading, conversations, and writing interactions, are effective ways to improve preschool children's language and emergent literacy skills. Parents are taught in their studies to encourage their children to talk about the visuals in a book, to create fuller stories, and to focus on print to develop children's emergent print and writing skills. The study, however, believes that the findings can only be applied to a certain group. Future researchers will be able to see if parents' training is equally beneficial when applied to populations with varying levels of education.

Finally, HLE is regarded as the most important component that can explain a child's development of emergent literacy. It was developed for young children, notably preschoolers. Every child gets special treats, interventions, and stimulations at home to help them improve (White, 2021) their language abilities. For example, a child who receives a high level of vocabulary exposure at home through various activities will develop stronger vocabulary abilities than a child who receives low exposure at home. On the other hand, a school-aged child has superior reading abilities as a result of his prior experiences. They are exposed to a literacy-rich environment prior to entering their schooling years. The environment encourages youngsters to develop a profound understanding of words, allowing them to improve their ability to decode and comprehend strings of words in context printed materials (Pinto et al., 2013).

As emergent literacy has become a very illuminating issue in research, it opens opportunities for researchers to approach the issue from many different perspectives. Consequently, concepts behind the terminologies can be different to some extent; however, such different consensus among researchers has even enriched the concept behind the term "emergent literacy" (Hume et al., 2016; Lyakso et al., 2014). Researchers have come to a consensus on the term "emergent literacy" in support of emergent literacy theories. It refers to the process of learning to read and write on a continuous basis. The process of development begins in a child's early years before he or she enters formal schooling. Reading acquisition, on the other hand, implies a distinction between pre-reading and reading behaviors. This leads to a viewpoint in which pre-reading is regarded as a precondition for actual reading. As a result, while reading readiness refers to natural maturation or the acquisition of specific sets of discrete perceptual skills, the former emphasizes a broader sense that encompasses specific skills and a wide range of foundations to reading that emerge over the years of future schooling. In light of this viewpoint, it should be noted that the concept of emergent literacy has changed in recent years from convention to intentions. This means that emergent literacy now encompasses cognitive and socio-psycholinguistic theories; as a result, investigating emergent literacy requires a more dynamic and interactive process in which children are seen as active participants with intentions who assign meaning to print based on their experiences.

According to previous research, the characteristics of emergent literacy skills are linked to early decoding skills to predict subsequent reading ability. According to one theory, early oral language skills provide a basis for early and later decoding skills (phonological approach) (Liu et al., 2018; Lyakso et al., 2014; Quach et al., 2018). This approach suggests that children’s vocabulary skills strongly envisage their phonological processing knowledge, which in turn forecasts reading skills during early school years. Furthermore, this perspective holds that oral language skills interact with decoding skills to predict future reading abilities, i.e., the cumulative language approach (Vandell et al., 2020). Consequently, emergent literacy skills are made up of both oral language and decoding skills that interact and provide equal variety in future reading abilities. Oral language abilities, phonological processing skills, and print processing skills, for example, all have an impact on one another (Girard & Girolametto, 2013; Puranik et al., 2011; Yeomans-Maldonado & Mesa, 2021)

In light of studies that show favorable connections between HLE and emergent literacy development, as well as their considerable effects on future reading skills and schooling achievement, there is a significant need to provide evidence that predicts the success of children's future learning. This is owing to the current regrettable situation in which, according to the results of the Program of International Student Assessment (PISA) for Indonesian students, the literacy rate is currently low. On the other hand, the government is constantly reforming the education system and processes to enhance the rate, which in turn means improving the quality of education. One way to reform is to instill a reading culture in children at a young age when they are still learning to read. This present study attempts to see the early process that has happened during the emergent phase of the children. Focusing on how parents'

efforts to intervene in their preschoolers to develop their emergent literacy skills, this present study figures out the activities utilized to help preschoolers to grow their emergent literacy skills.

Literature review

It is absolutely vital to notice and recall that emergent literacy development is linked to formal skills such as alphabet (letter) and word knowledge, print concepts and word or vocabulary recognition, phonological awareness, production, and narrative (Nicolopoulou et al., 2015). Such talents must be promoted, and children must also be intervened in order to acquire the skills and grow their emergent literacy. Furthermore, it is commonly acknowledged that emerging literacy skills serve as a foundation for children's future reading and learning.

Home is where the developmental process begins on the first day of life (White, 2021). As a result, a child's first resourceful site to acquire any exposure, including a language, is his or her home. When parents can establish a rich literacy environment for their children at home, the children will be able to do better in school. As a result, early childhood researchers regard HLE as a determining factor in later effective achievement. The majority of those researchers have proposed a wide range of literacy activities that have been carried out and have become strong causal variables in the development of children's literacy skills when they enter the schooling phases. The variety of literacy activities that make up the Home Literacy Environment (HLE) has led to discrepancies in concepts and perspectives among academics. Many studies concentrate solely on literacy activities (Guevara et al., 2020; Liu et al., 2018; Liu & Hoa Chung, 2022; Manolitsis et al., 2013; Myrtil et al., 2019; Nicolopoulou et al., 2015; Vuong et al., 2021). Others, such as (Girard & Girolametto, 2013), looked at five major skill areas that can be aided by home activities: phonological awareness, alphabetic knowledge, print concepts, vocabulary growth, and word recognition. On the other hand, others value parent-child interactions (Girard & Girolametto, 2013; Hume et al., 2016; Napoli & Purpura, 2018; Tong et al., 2021). In addition to parent-child interaction, some research associates HLE with other variables like parental book reading, storytelling, song singing, and the number of books at home (Quach et al., 2018; Rvachew et al., 2017; Shen & del Tufo, 2022a; Vuong et al., 2021). All these HLE variables have been found to influence young children's emergent literacy skills positively.

Aside from emergent skills, HLE is frequently identified as a predictor of future literacy development success. Synchronizing HLE and future learning, researchers claim that HLE is made up of various variables as a causal component for children's subsequent literacy knowledge. According to several studies, literacy-related activities can significantly determine children's literacy achievement (Pham, 2021). During activities such as reading books with their parents or participating in other literacy-related activities, children can be exposed to more linguistically sophisticated language and a broader vocabulary than they are exposed to during routine-based everyday activities such as mealtime and playtime (Gonzalez et al., 2011;

Jennings et al., 2012). Researchers have proposed that other features associated with HLE, such as vocabulary, exist. HLE was in charge of determining children's growth. (Goodrich et al., 2021; Liu & Hoa Chung, 2022).

Rather than some other research that studies the association between HLE and decoding skills, HLE and vocabulary have been confirmed to have a positive impact on the development of emergent literacy (e.g., letter recognition). In this regard, some studies have shown that HLE is both positively associated with concurrent decoding skills and predicts later decoding skills. (Girard & Girolametto, 2013; Lyakso et al., 2014; Niklas & Schneider, 2013; Quach et al., 2018; Shen & del Tufo, 2022b). In synchronizing between HLE and decoding skills, some researchers prefer to observe the skills before decoding. Researchers observe the association between HLE and phonological awareness (Lyakso et al., 2014)and awareness of rhyme and letter-sound knowledge(Liu & Hoa Chung, 2022). By the same token, studies conducted in the U.S. and other settings uncover consistent findings of HLE and phonological awareness(Niklas & Schneider, 2013). Higher HLE scores (e.g., more frequent engagement in reading activities) are associated with increased phonological awareness and letter-naming knowledge, according to those research studies. To put it another way, such research explains the situation. This phenomenon can be explained in part by the progression of young children's decoding skills over time. An expanded HLE allows toddlers to better understand the print-meaning relationship, which leads to the knowledge needed to learn to decode (Manolitsis et al., 2011). Overall, studies that demonstrate positive contemporaneous and predictive relationships of HLE with vocabulary have been more consistent than those that show positive concurrent and predictive associations of HLE with decoding skills. It is possible that HLE is connected with vocabulary and decoding skills in multiple ways.

As previously stated in this section, parents play an important role in the development of emergent literacy, which can be facilitated through a variety of HLE activities. Unfortunately, none of the studies look into the parents' educational backgrounds, which are thought to be related to the success of performing HLE activities. In light of this, the current study aims to examine parents' educational backgrounds and their relationship to HLE practices.

Research Questions

To fulfill the purpose of the study, the survey was seeking to answer the following research questions:

1. What HLE activities are promoted by parents to establish their children’s emergent literacy skills development?
2. What is the relationship between parents’ personal profiles and HLE activities?
3. How does the HLE influence the emergent literacy skills development?

Methods

Pedagogical Setting & Participants

By nature, a descriptive research design was chosen to investigate the intervention of parents to their children through the activities implied the attempts to establish Home Literacy Environment (HLE) and the relation between HLE and parents' personal background. Hence, the population of the present study was parents with children who were in the emergent literacy phase of preschoolers' development. Simple random sampling was used as a technique to approach the representatives of the population, so each of the population members had an equal chance to be selected. The researchers enlisted a sample frame to help them decide on the profile of the respondents needed for the study. The frame included age, education, occupations, monthly earnings, and child-rearing. In order to decide the number of the sample, it was determined that those who submitted the online survey constituted their consent to participate in the study.

Based on the frame determined by the authors, the respondents' profiles in this study could be described as the following:

a. the majority of preschoolers' ages were three years (25-36 months) and four years (37-48 months) with relatively the same percentage, namely 47.7% compared to 52.3%,

b. The majority of respondents of preschoolers' parents' ages were between 30 to less than 40 years (69.2%), while parents' education level mainly was a higher education level (Diploma/Bachelor) with a total of 59.8%.

c. Most of the respondents were from a working-age group (69.2%), with the most types of work being homemakers, private employees, lecturers, teachers, and civil servants, with a total of 83.2%.

d. More than half of the respondents had incomes above the local minimum wage, as much as 54.2%, and only 12.1% of respondents whose income was below the local minimum wage.

e. There were 43% of respondents who cared for their toddlers themselves, and the remaining 57% of respondents had their preschoolers cared for by other people. Most of the people who helped take care of toddlers were from the respondent's own family, either grandparents/aunts/ or others, with a percentage of 61.4%.

Design of the Study

In this study design, a survey was used to gain a greater understanding of a group of parents who reared preschoolers at home regarding their emergent literacy development phase. The survey consisted of a set of structured questions where each question was designed to obtain information about the background of the parents, the preschoolers' caregivers, and the state of the emergent literacy of the preschoolers. The survey was undertaken using online forms so that it was easy to access the respondents to share their information about particular issues. By

means of online distributions, it is more convenient to understand different populations or groups of people better. The survey has successfully gained 107 parents with preschoolers who are in the emergent literacy development phase.

Data collection & analysis

Through contact numbers on the author's mobile phones, the questionnaires are delivered to people with a variety of educational backgrounds; the national or second language is utilized to help them understand the questions (i.e., Indonesian language). In addition, the questionnaire used a six-scale Likert scale to describe the frequency of parents undertaking reading activities at home with their preschoolers, ranging from very low to very high. The exercises are separated into two categories: parent-child and phonic awareness and decoding skills activities.

The questionnaire used in the present study has passed validity and reliability testing that is demonstrated by the result of validity testing using *Pearson correlation* which shows that each statement item produced a significance value (Sig.) less than 5%, which means that the statement item is valid. The reliability is tested using Cronbach's alpha value which shows that the value is greater than 0.60, meaning that the questionnaire used in this study is reliable.

After testing the validity and reliability of the questionnaire, a descriptive analysis was carried out to describe or provide an overview of the research data, namely a description of the respondent's profile, a description of the Home Literacy Environment, and a description of the relationship between parents' profile and HLE.

Results/Findings and discussion

Description of Home Literacy Environment activities.

The HLE activities are described in 12 statement items. The description of the home literacy environment will be described based on the average value (mean) for each statement item and can be categorized as follows:

$$class\ interval\ = \frac{max - min}{class\ numbers} = \frac{6-1}{2} = 2.5$$

The scale in this study is 1 to 6, with two classes of category, low and high, so the class interval is known to be 2.5. With a class interval of 2.5, the following categories can be arranged:

$$1.0 < \text{mean } 3.5 : \text{low category}$$

$$3.5 < \text{mean } 6.0 : \text{high category}$$

The results of the description of each item of the statement of the home literacy environment activities are presented in Table 1 below:

Table 1. Home Literacy Environment (HLE) Activities

Variables	Min.	Max.	Mean	Category
Parents-child interaction activities: Shared Reading (LL.1a)	1	6	3.50	Low
Parents-child interaction activities – Reading books Aloud (LL.1b)	1	6	3.32	Low
Parents-child interaction activities – Telling Stories (LL.1c)	1	6	3.77	High
Parents-child interaction activities- Singing Songs or Playing with Rhymes (LL.1d)	1	6	3.98	High
Parents-child interaction activities – making book collections and reading nook at home (LL.1e)	1	6	3.39	Low
Parents-child interaction activities – playing words or alphabets puzzles associated with pictures (LL.1f)	1	6	3.68	High
Phonic Awareness and Decoding Skills Activities: Making Environmental Prints around the house (LL.2a)	1	6	3.40	Low
Phonic Awareness and Decoding Skills Activities: Asking Toddlers say out the first letter of a word (LL.2b)	1	6	2.64	Low
Phonic Awareness and Decoding Skills: Reading Aloud and Associated Pictures to Words and Pictures (LL.2c)	1	6	1.97	Low
Phonic Awareness and Decoding Skills: Point out letters in isolation and words (LL.2d)	1	6	4.72	High
Phonic Awareness and Decoding Skills Activities: Introducing Letters, Words and their sound or pronunciation in songs or other fun ways (LL.2e)	1	6	4.88	High
Phonic Awareness and Decoding Skills Activities: Identifying Alphabets (Letters) and numbers and recognizing words and pictures (LL.2f)	1	6	3.93	High
	Mean variable		3.60	High

The results of the description of the HLE activities as a whole produce an average value of 3.60, which is in the high category (3.5 – 6.0), meaning that the home literacy environment that occurs in the respondent's family is already high, but still close to the low range or still far from perfect. The indicators of the literacy environment that have been carried out well are Phonic Awareness, including pointing out letters in isolation and words, and Decoding Skills, including introducing letters, words, and their sound or pronunciation in songs or other fun ways.

The description of the literacy environment activities based on the average value of each indicator can be more clearly illustrated in the bar chart as follows:

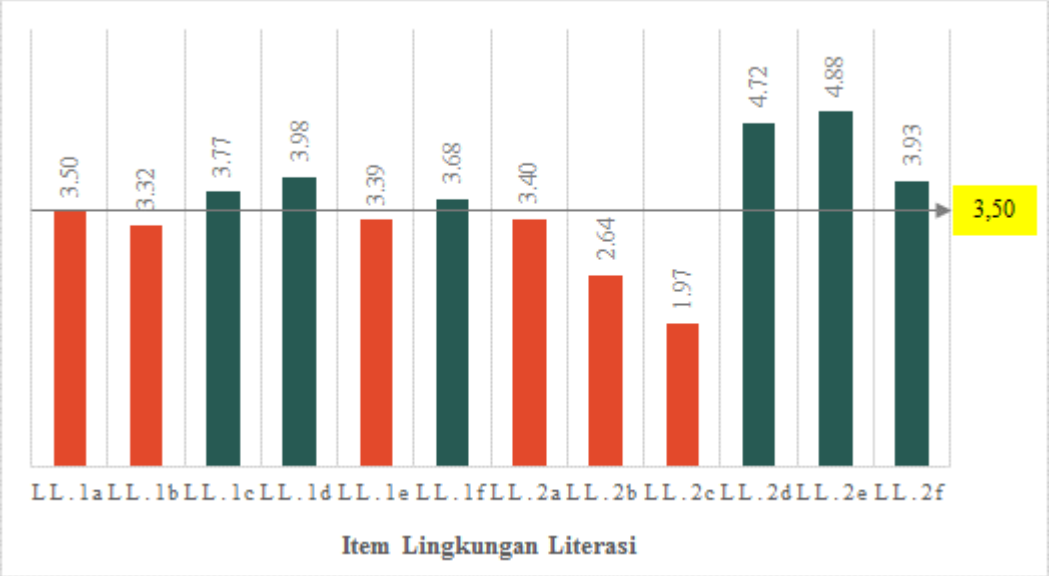


Figure 1 . Graph of Home Literacy Environment

Figure 1 shows six indices of HLE activities that are still ranked low (below the median value of 3.5), including:

1). Phonic awareness and decoding skills: reading aloud and associated pictures to words and pictures (1.97)

2). Phonic awareness and decoding skills activities: asking preschoolers to say out the first letter of a word (2.64)

3). Parents-child interaction activities – reading books aloud (3.32)

4). Parents-child interaction activities – making book collections and reading nook at home (3.39)

5). Phonic awareness and decoding skills activities: making environmental prints around the house (3.40)

6). Parents-child interaction activities: shared reading (3.50)

Relationship between Parents/Respondents' Profiles and HLE

The next analysis is to analyze the relationship between family profile and literacy environment in toddlers. The analysis technique uses the chi-square test on the cross-tabulation (crosstab) technique with the help of SPSS v.24 software. The chi-square test uses a guide if it produces a significance value (Sig.) less than 5%, then it is decided that there is a significant relationship, and if the value of Sig. is greater than 5%, it is decided that there is no correlation.

The results of testing the relationship between family profiles and the home literacy environment for preschoolers are presented in Table 2 below:

Table 2. C*ross Tabulation* Analysis on the correlation between respondent's profile and preschoolers' literacy environment

Respondents Profile	Sig.	Decision	Relationship pattern
Age	0.656	not significant	-
Education	0.010	significant	The higher the education level of parents, the better the home literacy environment
Work (NOT)?	0.760	not significant	-
Occupation Types	0.059	not significant	-
Family Income	0.140	not significant	-
Parents' child-rearing?	0.047	significant	Parents who look after their own preschoolers tend to provide a more literacy-friendly atmosphere for their children.
Caregivers	0.009	significant	Preschoolers reared by kinship caregivers (grandmother/grandfather, etc.) have a lower literacy environment than preschoolers raised by non-kinship caregivers.

Table 2 shows HLE for preschoolers, related to the education level of parents, child-rearing parents, and others who take care of the preschoolers. Based on the crosstab table regarding the pattern of linkages developed within the process of data analysis, it can be explained as follows:

1) The majority of respondents with a secondary education level experience a low degree of practicing the HLE activities (81.2%). Respondents with a Diploma/Bachelor's degree have a poor degree of practicing the HLE activities in the majority of cases, but the proportion is nearly identical to that of those with a high HLE, at 53.1 percent high against 46.9 percent low. Furthermore, individuals with a postgraduate education level (Master/Doctorate) have a high degree in the majority (66.7 percent). This data reveals that the greater the respondents' educational level is, the better degree of practicing the HLE activities for the preschoolers will be.
2) Respondents who do not look after their own preschoolers have a low degree of practicing the HLE activities in the majority of cases (60.7%), whereas those who do rearing their own preschoolers have a high degree of practicing the HLE activities in the majority of cases (58.7%). The data reveal that parents who look after their own preschoolers have a better practice of home literacy environment activities for their children than parents who have others look after their children.
3) In respondents whose preschoolers are cared for by their families (or relatives), the majority 71.4% of them have a low literacy environment; similarly, in respondents whose preschoolers are cared for by household assistants, the majority of them also have a low

literacy environment, but they are better than being cared for by families. Furthermore, the respondents whose preschoolers are cared for by Nanny/professional caregivers, the majority of whom have a high literacy environment. The information shows that parenting by parties other than the family tends to produce a better literacy environment for preschoolers.

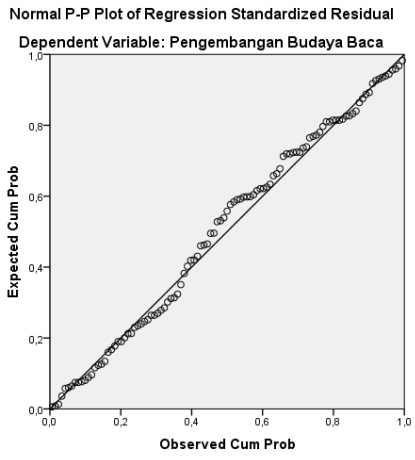
4) There is no difference between parents who work and not to work in practicing the HLE activities. The reason is that parents who work use caregivers to support the HLE activities for their preschoolers.

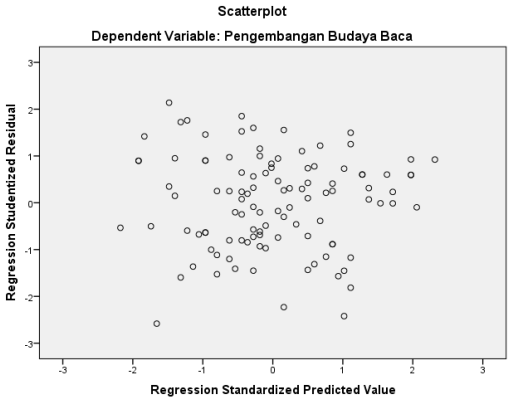
Impacts of HLE on Emergent Literacy Skills Development.

The next analysis is to analyze the influence of the HLE on the development of emergent literacy skills. The analysis technique will use linear regression analysis with the help of SPSS v.24 software. The results of the regression analysis are summarized in Table 3 below:

Table 3. The impact of the home literacy environment on the emergent literacy skills development in preschoolers as determined by a linear regression analysis

Relationships Between Variables	Regression Coefficient	Sig.	Effect direction
HLE à Emergent Literacy Development	0.421	0.000	Positive (+), meaning that the higher the HLE activities are, the higher the development of emergent literacy skills in preschoolers is
R = 0.439	R-square (R^2) = 0.193		Sig. F = 0.000
Assumption Testing			
Normality Graph			Heteroscedasticity Graph





The results of the regression analysis, as summarized in Table 3 can be described as follows:

1) There are 4 assumption tests in regression analysis, namely normality, heteroscedasticity, multicollinearity, and autocorrelation. Multicollinearity testing is not carried out because the independent variable was only 1, and autocorrelation testing is also not carried out because the data are not time-series data, so the regression assumption test is only carried out on

normality and heteroscedasticity tests.

a. The normality test with P-P Plot shows that the residual data plot is spread around a straight diagonal line, so it can be concluded that the data are normally distributed or the normality assumption is met.

b. The heteroscedasticity test with Scatter Plot shows that the residual data plots are randomly distributed above and below the zero line and do not form a certain pattern, so it can be concluded that the heteroscedasticity assumption is fulfilled.

Because the assumptions of normality and heteroscedasticity are met, the regression analysis can be continued.

2) The regression coefficient of the influence of the literacy environment on the development of emergent literacy is 0.421 with a significance value of 0.000 (Sig. <5%). This shows that the literacy environment significantly affects the development of emergent literacy skills in preschoolers. The direction of influence is positive and shows a unidirectional influence, meaning that the higher the literacy environment is, the higher the development of reading culture in preschoolers will be.

3) The correlation coefficient (R) is 0.439, indicating that the relationship between the literacy environment and the development of emergent literacy skills is not moderate or moderate. The determination of the relationship level category is as follows:

Interval koefisien korelasi (r)	Tingkat hubungan
r = 0	No correlation
0 < r ≤ 0,20	Very weak
0,20 < r ≤ 0,40	Weak
0,40 < r ≤ 0,60	Moderate
0,60 < r ≤ 0,80	Strongth
0,80 < r < 1,00	Very strongth
r = 1	Perfect correlation

4) The coefficient of determination (R2) is 0.193, meaning that the percentage of the influence of the literacy environment on the development of emergent literacy in preschoolers is 19.3%, and the remaining 80.7% of the development of emergent literacy is influenced by other factors, such as the ability of parents to motivate preschoolers, completeness of infrastructure, technological support, various procedures for the development of emergent literacy, and so on.

5) The results of the F test show a significance value of 0.000 (Sig. F<5%), meaning that the regression model concluded that the literacy environment could significantly influence the development of emergent literacy development in preschoolers.

Discussion

Based on the results of the analysis described in the previous sections of the article, the results of this study provide the following conclusions:

1. HLE activities that are described in the study show
    a. The majority of research respondents are mothers aged 30 - <40 years, have a higher education level (Diploma/Bachelor), have jobs as housewives, private employees, lecturers, teachers, and civil servants, and have incomes above the minimum wage, and give care for children. Another party is the family.
    b. The HLE in the respondent's family is already high but is still close to the low range or far from perfect. Six indicators of the literacy environment are still rated low, namely taking children to a reading park or library, taking children to the bookstore, reading books to children, training children's reading readiness by playing puzzles or word games, giving gift books to children, and storytelling to children.
    c. The development of emergent literacy for children formed in the respondent's family is already high. There are only two indicators of developing emergent literacy that are still rated low: the accuracy of children in recognizing letters and the accuracy of children mentioning letters when shown the letter symbol (Alphabets).
2. The HLE is related to the level of parental education, caring for children themselves or not, and who is taking care of these children. The higher the education level of the respondent is, the higher the literacy environment for children will be. Parents who care for the children themselves tend to have a better literacy environment for children than when children are cared for by other parties. Furthermore, parenting by parties other than the family tends to produce a better literacy environment for the children.
3. The development of emergent literacy skills is only related to the education level and the economic level of the parents. The higher the level of education of parents, the development of emergent literacy skills in children will also be higher. Furthermore, the higher the economic level of the family is, the higher the development of reading culture in children will be.
4. The HLE has a significant effect on the development of reading culture in children. The direction of the influence is positive, indicating that the higher the literacy environment, the higher the development of emergent literacy skills in children will also be. The level of closeness of the relationship between the literacy environment and the development of emergent literacy skills is moderate, with a percentage of influence of 19.3%, while the remaining 80.7% of the development of reading culture is influenced by other factors, such as the ability of parents to motivate completeness of infrastructure, technological support, variations in nurturing a reading culture.

The HLE activities supported by parents are limited in this study in two areas: parent-child involvement and phonic awareness and decoding skills. According to various studies, these two

sectors have become the foundation for the development of emergent literacy skills in preschoolers. According to various researchers like Niklas & Schneider (2013), Tong et al. (2021), and Vuong et al. (2021), interactions between parents and children at home have an important role in the development of emergent reading abilities in children in the early stages of literacy. In addition, several other researchers, Liu et al. (2018), Lyakso et al. (2014), and Quach et al. (2018), state that phonological awareness should be instilled throughout HLE activities, not to mention decoding, as mentioned by Manolitsis et al. (2011) has an impact on children's language and literacy development during the schooling phase. The current study confirms the findings of a prior study that highlighted the importance of parent-child connection in the development of emergent literacy skills. The current research has proved that parents have the most control over the practice of HLE activities, which plays a critical role in the development of children's emergent literacy skills. Parents use a variety of activities to develop their preschoolers' emerging literacy skills, such as phonic awareness, pointing out letters in isolation and words, and decoding skills, such as introducing letters/words and their sound or pronunciation in songs or other engaging ways.

Only parents with specified characteristics, on the other hand, can truly benefit from the activities. According to the findings of the study, the greater the parents' educational background is, the better the HLE activities will be implemented. Children nurtured by parents or other family members, on the other hand, have a better impact on the development of emergent reading abilities. Overall, certain other aspects such as parents' ability to encourage preschoolers, infrastructure completeness, technology assistance, and diverse processes for the development of emergent literacy add value to the implementation of HLE activities to support preschoolers' emergent reading skills. According to the findings, parents who must leave their preschoolers with caretakers or parents with a lower education background should follow the recommendations. More research should be done to develop tools to help parents and caregivers better use HLE activities at home to support emergent literacy development in preschoolers.

Conclusion

In this study, the parent-child involvement and phonic awareness, and decoding skills are the only HLE activities that parents support. These two areas have become the cornerstone for the development of emergent reading skills in preschoolers. Then, interactions between parents and children at home play a critical role in the development of emergent literacy skills. Furthermore, to have an impact on children's language and literacy development during the schooling phase, phonological awareness should be fostered throughout HLE activities, not to mention decoding. This present research highlights that parents have the most control over the implementation of HLE activities, which is crucial for the development of children's emergent literacy skills. Parents engage their preschoolers in a variety of activities to help them develop their emerging literacy skills, including phonic awareness (such as pointing out letters in isolation and words) and decoding skills (such as introducing letters or words and their sound or pronunciation) in songs or other engaging ways. Only parents who match certain criteria, on the other hand, will

get the most out of the activities. According to the study's findings, the higher the educational background of the parents is, the better the HLE activities will be implemented. On the other hand, children whom their parents or other family members nourish have a greater impact on the development of emergent literacy skills. Other factors that contribute value to the implementation of HLE activities to promote preschoolers' emergent reading skills include parents' ability to encourage their children, infrastructural completeness, technology aid, and a variety of procedures for the development of emergent literacy. Parents who must leave their preschoolers with caretakers or parents with a lower education background should follow the recommendations.

Finally, this study has drawn attention to the HLE activities and their relationship with the development of emergent literacy that is conducted using the survey method. In addition, simple random sampling is hard to arrive at the representation of the population. Further longitudinal research is now needed to assess the direction of this relationship and to see whether the HLE activities provided by parents or caregivers become an increasingly important predictor of children's emergent literacy skills development. Moreover, a specific test should be employed to really gauge the development that occurred prior to and after treatments are given.

Acknowledgments

The authors would like to thank the head of the Development Studies Department, Faculty of Creative Design and Digital Business – Institut Teknologi Sepuluh Nopember, for granting seminar tuition from the Department Budget 2022.

References

Girard, L. C., & Girolametto, L. (2013). Investigating the relationship between social behaviors and phonological awareness in preschool children. *Journal of Applied Developmental Psychology*, *34*(3), 123–130. https://doi.org/10.1016/j.appdev.2013.01.002

Gonzalez, J. E., Taylor, A. B., McCormick, A. S., Villareal, V., Kim, M., Perez, E., Darensbourg, A., & Haynes, R. (2011). Exploring the underlying factor structure of the home literacy environment (HLE) in the English and Spanish versions of the Familia Inventory: A cautionary tale. *Early Childhood Research Quarterly*, *26*(4), 475–483. https://doi.org/10.1016/j.ecresq.2010.12.001

Goodrich, J. M., Lonigan, C. J., Phillips, B. M., Farver, J. A. M., & Wilson, K. D. (2021). Influences of the home language and literacy environment on Spanish and English vocabulary growth among dual language learners. *Early Childhood Research Quarterly*, *57*, 27–39. https://doi.org/10.1016/j.ecresq.2021.05.002

Guevara, J. P., Erkoboni, D., Gerdes, M., Winston, S., Sands, D., Rogers, K., Haecker, T., Jimenez, M. E., & Mendelsohn, A. L. (2020). Effects of Early Literacy Promotion on Child

Language Development and Home Reading Environment: A Randomized Controlled Trial. *Journal of Pediatrics: X*, *2*. https://doi.org/10.1016/j.ympdx.2020.100020

Hume, L. E., Allan, D. M., & Lonigan, C. J. (2016). Links between preschoolers' literacy interest, inattention, and emergent literacy skills. *Learning and Individual Differences*, *47*, 88–95. https://doi.org/10.1016/j.lindif.2015.12.006

Jennings, D., Hanline, M. F., & Woods, J. (2012). Using Routines-Based Interventions in Early Childhood Special Education. *Dimensions of Early Childhood*, *40*(2), 13–23.

Liu, C., Georgiou, G. K., & Manolitsis, G. (2018). Modeling the relationships of parents' expectations, family's SES, and home literacy environment with emergent literacy skills and word reading in Chinese. *Early Childhood Research Quarterly*, *43*, 1–10. https://doi.org/10.1016/j.ecresq.2017.11.001

Liu, C., & Hoa Chung, K. K. (2022). Effects of fathers' and mothers' expectations and home literacy involvement on their children's cognitive-linguistic skills, vocabulary, and word reading. *Early Childhood Research Quarterly*, *60*, 1–12. https://doi.org/10.1016/j.ecresq.2021.12.009

Lyakso, E. E., Frolova, O. v., & Grigorev, A. S. (2014). Infant Vocalizations at the First Year of Life Predict Speech Development at 2 - 7 Years: Longitudinal Study. *Psychology*, *05*(12), 1433–1445. https://doi.org/10.4236/psych.2014.512154

Manolitsis, G., Georgiou, G. K., & Parrila, R. (2011). Revisiting the home literacy model of reading development in an orthographically consistent language. *Learning and Instruction*, *21*(4), 496–505. https://doi.org/10.1016/j.learninstruc.2010.06.005

Manolitsis, G., Georgiou, G. K., & Tziraki, N. (2013). Examining the effects of home literacy and numeracy environment on early reading and math acquisition. *Early Childhood Research Quarterly*, *28*(4), 692–703. https://doi.org/10.1016/j.ecresq.2013.05.004

Pham, U. M. N. (2021). The Effects of Reading Habits on Reading Comprehension among EFL Students at Van Lang University. *International Journal of TESOL & Education*, *1*(2), 15–44. Retrieved from https://i-jte.org/index.php/journal/article/view/19

Myrtil, M. J., Justice, L. M., & Jiang, H. (2019). Home-literacy environment of low-income rural families: Association with child- and caregiver-level characteristics. *Journal of Applied Developmental Psychology*, *60*, 1–10. https://doi.org/10.1016/j.appdev.2018.10.002

Napoli, A. R., & Purpura, D. J. (2018). The home literacy and numeracy environment in preschool: Cross-domain relations of parent-child practices and child outcomes. *Journal of Experimental Child Psychology*, *166*, 581–603. https://doi.org/10.1016/j.jecp.2017.10.002

Nicolopoulou, A., Cortina, K. S., Ilgaz, H., Cates, C. B., & de Sá, A. B. (2015). Using a narrative- and play-based activity to promote low-income preschoolers' oral language,

emergent literacy, and social competence. *Early Childhood Research Quarterly*, *31*, 147–162. https://doi.org/10.1016/j.ecresq.2015.01.006

Niklas, F., & Schneider, W. (2013). Home Literacy Environment and the beginning of reading and spelling. *Contemporary Educational Psychology*, *38*(1), 40–50. https://doi.org/10.1016/j.cedpsych.2012.10.001

Pinto, A. I., Pessanha, M., & Aguiar, C. (2013). Effects of home environment and center-based childcare quality on children's language, communication, and literacy outcomes. *Early Childhood Research Quarterly*, *28*(1), 94–101. https://doi.org/10.1016/j.ecresq.2012.07.001

Puranik, C. S., Lonigan, C. J., & Kim, Y. S. (2011). Contributions of emergent literacy skills to name writing, letter writing, and spelling in preschool children. *Early Childhood Research Quarterly*, *26*(4), 465–474. https://doi.org/10.1016/j.ecresq.2011.03.002

Quach, J., Sarkadi, A., Napiza, N., Wake, M., Loughman, A., & Goldfeld, S. (2018). *Do Fathers' Home Reading Practices at Age 2 Predict Child Language and Literacy at Age 4?*

Rvachew, S., Rees, K., Carolan, E., & Nadig, A. (2017). Improving emergent literacy with school-based shared reading: Paper versus ebooks. *International Journal of Child-Computer Interaction*, *12*, 24–29. https://doi.org/10.1016/j.ijcci.2017.01.002

Shen, Y., & del Tufo, S. N. (2022). Parent-child shared book reading mediates the impact of socioeconomic status on heritage language learners' emergent literacy. *Early Childhood Research Quarterly*, *59*, 254–264. https://doi.org/10.1016/j.ecresq.2021.12.003

Tong, F., Zhang, H., Zhen, F., Irby, B. J., & Lara-Alecio, R. (2021). Supporting home literacy practices in promoting Chinese parents' engagement in their children's English education in low-SES families: An experimental study. *International Journal of Educational Research*, *109*. https://doi.org/10.1016/j.ijer.2021.101816

Vandell, D. L., Lee, K. T. H., Whitaker, A. A., & Pierce, K. M. (2020). Cumulative and Differential Effects of Early Child Care and Middle Childhood Out-of-School Time on Adolescent Functioning. *Child Development*, *91*(1), 129–144. https://doi.org/10.1111/cdev.13136

Vuong, Q. H., La, V. P., Nguyen, T. H. T., Nguyen, M. H., Vuong, T. T., Vuong, H. M., & Ho, M. T. (2021). Impacts of parents and reading promotion on creating a reading culture: Evidence from a developing context. *Children and Youth Services Review*, *131*. https://doi.org/10.1016/j.childyouth.2021.106311

White, J. (2021). The Opinions and Perceptions of K1-3 Parents in Relation to BYOD Implementation in Japanese Kindergartens. *International Journal of TESOL & Education*, *2*(1), 1–22. https://doi.org/10.54855/ijte2202011

Yeomans-Maldonado, G., & Mesa, C. (2021). The association of the home literacy environment

and parental reading beliefs with oral language growth trajectories of Spanish-English bilingual children. *Early Childhood Research Quarterly*, *57*, 271–284. https://doi.org/10.1016/j.ecresq.2021.07.001

Biodata

Kartika Nuswantara has been working for the Department of Development Studies, Institut Teknologi Sepuluh Nopember in Surabaya, Indonesia for more than 2 decades. Currently, she is appointed to head the Social Humaniora Laboratory. Her main research interests fall upon some research areas including literacy, culture assimilations, Indonesia language teaching for foreign speakers, and TESOL.

Eka Dian Savitri is a lecturer at the Department of Development Studies, Sepuluh Nopember Institute of Technology, Surabaya, Indonesia. The subjects that she teaches are Indonesian and interpersonal communication. Her research interests are in literacy, discourse analysis, sociolinguistics, and interpersonal communication.

Hermanto is a senior English lecturer in Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia. He teaches English for Academic Purposes, General English, and Bahasa Indonesia or Indonesian for Foreign Speakers. His interest other than teaching is research in the areas of language teaching, literacy, and socio-humanity.

Ni Wayan Suarmini is a lecturer at the Department of Development Studies, Institut Teknologi Sepuluh, Surabaya, Indonesia. She is interested in investigating the issues of state resilience and literacy for the community. Her current research interest is on the basic literacy development as a pillar to establish national resilience.

Gita Widi Bhawika is a lecturer at the Institut Teknologi Sepuluh Nopember (ITS). She is an alumnus of the Electronic Engineering Polytechnic Institute of Surabaya, the Electronic Engineering study program, concentration of Mechatronics Engineering and an alumni of the ITS Master of Technology Management Study Program, with expertise in Industrial Management.