



ASSOCIATION BETWEEN MOTHER'S EDUCATIONAL STATUS AND HOME LITERACY ENVIRONMENT WITH THE LANGUAGE ABILITIES OF SEVEN YEAR-OLD CHILDREN: PATH ANALYSIS EVIDENCE

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ABSTRACT

Background: Factors that can influence the success of the educational process are family environmental factors, school environment, and community environment. The role of parents is to provide materials and help their children when they experience difficulties in the learning process. Language skills emerge in early childhood and are critical in promoting later literacy competencies, such as reading and writing. The period from birth to age 3 is critical for language development, as nearly all typically developing children acquire important language skills by age 3. During this period, children's home environment is especially important, as parents are the main providers of language input and support, allowing most children to acquire a basic foundation of language.

Methods: This study used a cross sectional study design, which was conducted in Surakarta City. A sample of 100 people was selected using a random sampling technique. Data collection was performed using a questionnaire and analyzed by path analysis.

Results: The direct relationship between expressive language abilities of children who have mothers with higher education is 2.2 units higher than children with mothers with low education ($b=2.2$; 95% CI= 0.9 to 3.5; $p= 0.001$). A high home literacy environment had a log odd of experiencing good expressive language skills of 2.04 units higher than children with a low home literacy environment ($b=2.04$; 95% CI= 0.7 to 3.3; $p= 0.002$). The indirect relationship between maternal higher education and expressive language abilities through the child's home literacy environment is statistically significant. Children who have mothers with higher education have log odd for high language expressive abilities of 2.8 units higher than children with mothers with low education ($b=2.8$; 95% CI= 1.7 to 3.9; $p= <.001$).

Conclusion: A child's good expressive language abilities are influenced indirectly by the mother's high education through a high home literacy environment.

Keywords: *mother's educational status, home literacy environment, language skills*

BACKGROUND

Parents are the first and main educators for children.

In managing children's problems, the role of parents, namely father and mother, remains the main one. Parents have the greatest influence on child development, namely around 92%, while therapists and teachers only have an influence of 3 to 4%¹

Driving for the child's development is fully held by the parents. The role of parents is to provide materials and help their children when they experience difficulties in the learning process. Factors that can influence the success of the educational process are family environmental factors, school environment, and community environment. In some of these factors, one of the keys in education is the role of parents in the student's family environment as a driving force that gives encouragement, as well as friends are being role models for their children apart from being people who love, who give affection and a place for their children to ask questions.²

Parents, and the home literacy environment they create, have a direct impact on the acquisition of vocabulary awareness, reading comprehension, and spelling skills before they enter the formal school environment. Although much evidence shows the importance of the home literacy environment on children's early language development and literacy skills, research results reveal that these effects vary across cultures and economic groups. Where some studies with white, middle-class children found strong and consistent effects, others studying children from diverse ethnic and socioeconomic groups or other language backgrounds found fewer associations.¹

Considering the important role of parents in supporting children's literacy

skills, researchers want to conduct a literature on knowing the relationship between maternal educational status and the home literacy environment with the language abilities of 7 year old children in Surakarta. It is hoped that the results of this research will be possible inspire the principal or teachers about efforts to involve the person's parents in improving student literacy.

A school development of literacy skills depends on the literacy environment and children's experiences at home and school. A literate home environment is broadly defined as a variety of experiences interactions that occur in a variety of contexts and are often cited as a key component in literacy acquisition.³

Broadly parental involvement includes various forms of people's participation parents in terms of children's education with parties school. Parents can support children's education by attending activities school, carrying out parental obligations related to children's education. Parental involvement is there various forms parenting, providing an environment that safe and stable, intellectual stimulation, discussion parent – child, model of values education and social construction, aspirations Fulfillment of the child's personal interests, be a good citizen, related to school, and participation in school activities. A literate home environment refers to the frequency and nature of literacy-related activities at home, especially parent-child joint book reading. In addition, the age of onset of parent-child book reading, the number of books in the home, the frequency of trips to the library, and the frequency and enjoyment of reading by the primary caregiver are also considered aspects of a literate home environment.⁴

Language skills emerge in early childhood and are critical in promoting later literacy competencies, such as reading

and writing. The period from birth to age 3 is critical for language development, as nearly all typically developing children acquire important language skills by age 3. During this period, children's home environment is especially important, as parents are the primary providers of language input and support, allowing most children to acquire a basic foundation of language.⁵

However, little is known about children's literacy practices, such as looking at books alone and parents' literacy practices (parents' involvement in their own literacy activities, such as reading newspapers in the presence of children in relation to children's language abilities. Therefore, more research is needed that considers specific aspects of the literacy home environment to better understand which aspects best promote children's language development, especially for rural children. The current research extends previous findings by examining types of literacy practices in the home and their relationship to language skills early childhood using a representative sample.

METHODS

This was a cross sectional study conducted in 5 Surakarta Kindergartens. The study population was preschool children. A sample of 100 children aged 7 years was selected by simple random sampling. The research technique for collecting data was carried out by filling out questionnaires by research subjects. The research instrument is a closed questionnaire. After the questionnaire has been completed by the research subject, the questionnaire is then collected back to the researcher. The questionnaire contains statements that will be used to measure the influence of variables. This research has 2 independent variables, namely the home literacy environment and the mother's

educational status and 1 dependent variable, namely expressive language ability. Measurement of all required variables uses a questionnaire. The questionnaire has been tested for reliability with a Cronbach's alpha value of 0.97. Data collection was performed using a questionnaire and analyzed by path analysis. Before collecting data, the researcher will arrange research permits from the principal of the elementary school in the Surakarta area. After obtaining permission, the researcher introduces himself to the research subjects and explains the aims and benefits of the research being carried out, then asks for the research subjects' approval by signing an informed consent for availability to participate in research.

RESULT

1. Sample Characteristics

Sample characteristics of continuous data This research was conducted on 100 research subjects among 7 year old children in 3 elementary schools in Surakarta.

Table 1 Sample Characteristics

Variables	Frequency (n)	Percentage (%)
Parental Education		
Elementary School	12	12
Junior High School	16	16
Senior High School	57	57
Diploma 1	2	2
Diploma 3	3	3
Bachelor	10	10

2. Univariate analysis

Table 2 Description of Research Variables

Variables	N	Mean	SD	Min	Maks
Mother's Education	100	3.02	1.2	1	6
Home literacy environment	100	22.4	4.1	10	30
Expressive Language Ability	100	27.3	5.07	15	35

The maternal education variable shows that the mean and SD value is 3.02 ± 1.2 with the lowest value being 1 (primary education) and the highest value being 6 (S1). The home literacy environment variable shows that the mean and SD value is 22.4 ± 4.1 with the lowest value being 10 and the highest being 30. The Expressive Language Ability variable shows that the mean and SD value is 27.3 ± 5.07 and the lowest value is 15 and the highest value is 35

Table 3 Description of Research Variables Based on Categorical Data

Variables	Category	N	Percentage (%)
Mother's Education	High	72	72
	Low	28	28
Home literacy environment	High	73	73
	Low	27	27
Expressive Language	Fluent	59	59
	Not	41	41

Table 4 Result of chi square test

Variables	Language skills				OR	p
	High		Low			
	n	%	n	%		
<i>Home literacy environment</i>						
High	55	75.3	18	24.6	17.5	<0.001
Low	4	14.8	23	85.1		
Pendidikan						
High	55	76.3	17	23.6	19.4	<0.001
Low	4	14.2	24	85.7		

Ability	Fluent
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Maternal education was divided into 2 categories, namely those with high and low education. Based on the data above, it was found that 72 mothers had at least high school education (72%). The home literacy environment in this research is also divided into two categories, namely high and low. A total of 73 children (73%) have a high home literacy environment. Expressive language ability is categorized into 2, namely high expressive language ability and low expressive language ability. A total of 59 children (59%) had high expressive language abilities.

3. The result of bivariate analysis

Table 3 shows the results of the bivariate analysis. Children who receive high literacy activities at home (home literacy environment) are 17.5 times more likely to have high expressive language skills compared to children who do not receive literacy activities at home (OR= 17.5; $p < 0.001$). There is a relationship between maternal education and children's expressive language abilities. Mothers who have high education are 19.4 times more likely to have high expressive language skills than mothers who have low education (OR= 19.4; $p < 0.001$).

The model specification describes the relationship between the variables studied. This research has 3 measurable research variables, namely parenting patterns, existence of siblings, and pragmatic abilities. The image below presents the relationship between exogenous and endogenous variables.

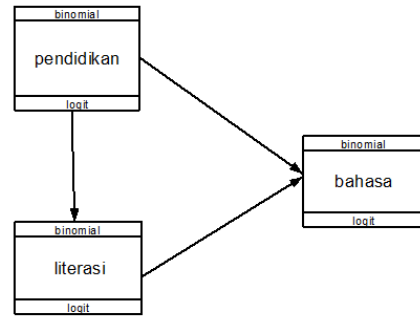


Figure 1 path analysis diagram

Tabel 5 The Result of Path Analysis

Dependent variable	Independent variable	b	CI 95%		p
			Lower limit	Upper limit	
Direct Influence					
High Expressive Language skills	← High home literacy environment	2.04	0.7	3.3	0.002
High Expressive Language skills	← High maternal education	2.2	0.9	3.5	0.001
Indirect influence					
High home literacy environment	← High maternal education	2.8	1.7	3.9	< 0.001
Log likelihood	=	-88.53			
N observasi	=	100			

Table 5 Signify that children's expressive language abilities have a direct relationship with the home literacy environment and mother's education. Children with high literacy activities (home literacy environment) have the log odds for good expressive language skills 2.04 units higher than children with low literacy activities at home (b=2.04; 95% CI= 0.7 to 3.3; p= 0.002) . Mothers with high education had a log odds for children experiencing expressive language abilities of 2.2 units higher than mothers with low education (b=2.2; 95% CI= 0.9 to 3.5; p= 0.001).

Mothers with higher education are indirectly related to children's expressive language abilities through the home

literacy environment. Mothers with a highly educated background had a log odds for high children's expressive language abilities of 2.8 units higher than mothers with a low education (b=2.8; 95% CI= 1.7 to 3.9; p= <0.001).

DISCUSSION

The relationship between maternal education and language abilities in pre-school children

The results of this study show that there is a direct relationship that the expressive language abilities of children whose mothers have higher education are 2.2 units higher than children whose mothers have low education (b=2.2; 95% CI= 0.9 to 3.5; p= 0.001). The results of this research are in accordance with research

conducted by ⁶ which states that parents' educational level has a big influence on their children's communication. Education is the cultivation of conditions that will support the full development of each individual. The same thing was also stated by ⁷ that mothers with better human resources (higher education) have more advanced language skills, wider vocabulary and appropriate use in daily interactions with children. Children who receive more stimulus from the environment, especially mothers, will show better language skills as an important component of children's expressive language skills. ⁸

The relationship between home literacy environment and language abilities in pre-school children

The research results show that there is a direct relationship between the home literacy environment and expressive language abilities in pre-school children. A high home literacy environment has a log odd of experiencing good expressive language skills of 2.04 units higher than children with a low home literacy environment (b=2.04; 95% CI= 0.7 to 3.3; p= 0.002). The results of this study are in accordance with research from ⁹. that the home living environment has good evidence of having an effect on children's reading abilities which are mediated by spoken language and expressive language abilities at the start of school, this is also supported by research conducted by ¹⁰ that the influence of the environment has a big influence on children's language abilities. Apart from that, other research conducted by ¹¹ shows that there is an influence between the environment and children's expressive language abilities, the environment is an important predictor of children's language and reading development. Language development is

one of the child's developments that is important to receive stimulation from an early age, aspects of early childhood literacy development specifically center on several components such as word recognition, vocabulary development, speaking fluency, understanding of writing and its relationship to symbols ¹².

The relationship between highly educated mothers and children's language abilities through the home literacy environment in pre-school children

The results of this study indicate that there is a statistically significant indirect relationship between maternal higher education and expressive language abilities through the child's home literacy environment. Children who have mothers with higher education have log odd for high language expressive abilities of 2.8 units higher than children with mothers with low education (b=2.8; 95% CI= 1.7 to 3.9; p= <0.001). Children's expressive language abilities are influenced by the learning environment in their home, especially the home literacy environment. The home literacy environment is a construct that has many aspects and is complex, consisting of all literacy resources and shared literacy interactions within a family ¹³. The important components are the habit of reading together in the family, the frequency and quality of reading together¹⁴. This important aspect is also related to the parents' attitude towards reading and when reading together. Children who grow up in families with mothers who have higher education experience a quality literacy environment. In addition, children's language expression abilities at preschool age vary depending on their parents. ¹⁵

CONCLUSION

Good language expressive abilities are directly influenced by high maternal education ($b=2.2$; 95% CI= 0.9 to 3.5; $p=0.001$) and high home literacy environment ($b=2.04$; 95% CI= 0.7 to 3.3; $p=0.002$). Children's expressive language abilities are influenced indirectly by the mother's high education through a high home literacy environment.

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