

**The Effect of Early Reading on the Development  
of Literacy and Cognitive Abilities of Grade I Children  
at YPJ Kuala Kencana Elementary School**

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**Abstrak**

.Membaca di awal pendidikan merupakan salah satu faktor yang berpengaruh terhadap kemampuan kognitif dan juga mengembangkan literasi. Maka dari itu, membaca di kelas rendah itu harus selalu ditingkatkan. Penelitian ini berjenis kuantitatif, dengan orientasi memperjelas factor-faktor yang berpengaruh, dengan tipe penelitian regresi. Instrument penelitian terdiri dari angket yang disebar secara offline dan juga wawancara dari sumber utama. Analisis data dilakukan dengan regresi linear berganda. Hasil penelitiannya 1) Terdapat pengaruh yang signifikan antara kemampuan membaca awal terhadap pengembangan literasi siswa di SD YPJ Kuala Kencana. Hal ini ditunjukkan oleh nilai signifikansi  $t$  yang lebih kecil dari  $\alpha$  ( $0,000 < 0,05$ ) dan  $t_{hitung}$  yang lebih besar dari  $t_{tabel}$  ( $4,900 > 2,000$ ) 2) Terdapat pengaruh yang signifikan antara kemampuan membaca awal terhadap kemampuan kognitif siswa di SD YPJ Kuala Kencana. Hal ini ditunjukkan oleh nilai signifikansi  $t$  yang lebih kecil dari  $\alpha$  ( $0,003 < 0,05$ ) dan  $t_{hitung}$  yang lebih besar dari  $t_{tabel}$  ( $3,013 > 2,000$ ) 3) Terdapat pengaruh yang signifikan antara kemampuan membaca awal terhadap pengembangan literasi dan kemampuan kognitif secara simultan (bersama-sama) di SD YPJ Kuala Kencana. Hal ini ditunjukkan oleh nilai signifikansi  $F$  yang lebih kecil dari  $\alpha$  ( $0,000 < 0,05$ ) dan  $F_{hitung}$  yang lebih besar dari  $F_{tabel}$  ( $25,801 > 8,570$ )

**Kata kunci:** *Membaca Awal, Kemampuan Kognitif, Pengembangan Literasi*

**Abstract**

Reading in early education is one of the factors that influences cognitive abilities and also develops literacy. Therefore, reading in lower grades must always be improved. This study is quantitative, with an orientation to clarify the influencing factors, with a regression research type. The research instrument consists of a questionnaire distributed offline and also interviews from primary sources. Data analysis was carried out using multiple linear regression. The results of the study are 1) There is a significant influence between early reading ability and the development of student literacy at SD YPJ Kuala Kencana. This is indicated by the significance value of  $t$  which is smaller than  $\alpha$  ( $0.000 < 0.05$ ) and  $t$  count which is greater than  $t$  table ( $4.900 > 2.000$ ) 2) There is a significant influence between early reading ability and students' cognitive abilities at SD YPJ Kuala Kencana. This is indicated by the significance value of  $t$  which is smaller than  $\alpha$  ( $0.003 < 0.05$ ) and  $t$  count which is larger than  $t$  table ( $3.013 > 2.000$ ) 3) There is a significant influence between early reading ability on literacy development and cognitive ability simultaneously (together) at SD YPJ Kuala Kencana. This is indicated by the significance value of  $F$  which is smaller than  $\alpha$  ( $0.000 < 0.05$ ) and  $F$  count which is larger than  $F$  table ( $25.801 > 8.570$ ).

**Keywords:** *Early Reading, Cognitive Skills, Literacy Development*

## Introduction

Early childhood is a very meaningful and fundamental early period throughout the development and growth of human life. Early childhood is a period of exploration, identification/imitation, sensitivity, and play.<sup>1</sup> During this period, early childhood will begin to learn to think critically and very easily absorb the data they hear. Early childhood education is a very important thing for a child's growth. Compulsory educational activities can increase students' motivation and enthusiasm in learning so that they can improve the skills and abilities of early childhood.<sup>2</sup> The problem that occurs today is that many students are less motivated in learning. This is because teachers still use conventional teaching methods in learning, making students feel bored quickly in learning.<sup>3</sup> Reading is a complex process that involves more than just vocalizing written words; it engages visual perception, cognitive processing, and metacognitive awareness, as readers translate written symbols into meaningful language

Reading skills are language skills for students that they must master in order to be able to participate in all activities in the education and teaching process. Reading short stories is reading reading that creates an imagination (picture) in the mind. The type of fictional reading is reading that is full of high fantasy. Early reading skills in children can be seen based on the knowledge of letters that the child has. If children can recognize various letters well and fluently, it will help make it easier for children to spell.<sup>4</sup>

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<sup>1</sup> Febriana Kurniawati, Putri Diah Motimona, and Ika Budi Maryatun, "Fostering Early Childhood Literacy: The Crucial Role of Family Environments," *Indonesian Journal of Educational Research and Review* 7, no. 3 (October 25, 2024): 720–33, <https://doi.org/10.23887/ijerr.v7i3.67982>.

<sup>2</sup> Resi Rosalianisa, Budi Purwoko, and Nurchayati Nurchayati, "Analysis of Early Childhood Fine Motor Skills Through the Application of Learning Media," *IJORER : International Journal of Recent Educational Research* 4, no. 3 (May 7, 2023): 309–28, <https://doi.org/10.46245/ijorer.v4i3.307>.

<sup>3</sup> Febri Maria Andriyani, Maximus Gorky Sembiring, and Trini Prastati, "Efektivitas E-Book Dalam Pembelajaran Bahasa Indonesia Ditinjau Dari Literasi Digital Sebagai Upaya Pemulihan Learning Loss (Studi Eksperimen Pada Siswa Kelas 5 Sekolah Dasar)," *Jurnal Studi Guru Dan Pembelajaran* 7, no. 1 (2024), <https://e-journal.my.id/jsdp/article/view/3733>.

<sup>4</sup> Nur Aprita and Nina Kurniah, "Pengembangan Media Busy Book Untuk Meningkatkan Kemampuan Membaca Awal Dan Perkembangan Kognitif Anak Usia Dini (Studi Pada Anak Kelompok A PAUD Kota Bengkulu)," *Diadik: Jurnal Ilmiah Teknologi Pendidikan* 11, no. 1 (October 14, 2021): 50–63, <https://doi.org/10.33369/diadik.v11i1.18368>.

One of the factors that influences early reading skills in children is the environment.<sup>5</sup> The literacy environment at home, and especially the literacy activities of adults with children at home, are important predictors of children's early literacy.<sup>6</sup> Early literacy is the foundation of knowledge, attitudes that are useful for preschool children and the basis for reading and writing. This early literacy can affect children's abilities in the future where students in elementary school are influenced by the stimulation that children receive before entering that level. If early literacy skills do not get stimulation early on, it can make it difficult for children to adapt to formal schools and make it difficult for teachers to develop other abilities.<sup>7</sup> Improving literacy skills must be a shared priority to create a generation that is smart, adaptive, and ready to face future challenges.<sup>8</sup> That's why literacy skills need to be improved through reading and writing.

There are five literacy skills that need to be developed through education. 1) Basic Literacy. Basic literacy includes the ability to read, write, and perform basic calculations. These skills are essential for understanding information and performing everyday tasks. 2) Information Literacy. Information literacy includes the ability to search for, evaluate, and use relevant information. This skill is essential in today's digital age, where information is available in large and varied quantities. 3) Digital Literacy. Digital literacy includes the ability to use digital technology to access, create, and share information. This skill is essential in everyday life, where digital technology is increasingly used. 4) Financial Literacy. Financial literacy includes the ability to understand basic financial concepts, such as money management, investment, and credit. This skill is essential for making wise financial decisions and managing personal finances effectively. 5) Critical Literacy. Critical literacy includes the ability to analyze

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<sup>5</sup> Kasmah Kasmah et al., "Evaluating the Implementation of Formal Early Childhood Education in Pesantren in South Sulawesi," *Nazhruna: Jurnal Pendidikan Islam* 6, no. 3 (December 4, 2023): 436–56, <https://doi.org/10.31538/nzh.v6i3.4209>.

<sup>6</sup> Ahyar Ahyar, Nurhidayah Nurhidayah, and Adi Saputra, "Implementasi Model Pembelajaran TaRL Dalam Meningkatkan Kemampuan Literasi Dasar Membaca Peserta Didik Di Sekolah Dasar Kelas Awal | JIIP - Jurnal Ilmiah Ilmu Pendidikan," accessed May 20, 2025, <https://jiip.stkipyapisdompnu.ac.id/jiip/index.php/JIIP/article/view/1242>.

<sup>7</sup> Aprita and Kurniah, "Pengembangan Media Busy Book Untuk Meningkatkan Kemampuan Membaca Awal Dan Perkembangan Kognitif Anak Usia Dini (Studi Pada Anak Kelompok A PAUD Kota Bengkulu)."

<sup>8</sup> Citra Citra Ayu Dewi et al., "The Effect of Contextual Collaborative Learning Based

Ethnoscience to Increase Student's Scientific Literacy Ability: Research Article," *Journal of Turkish Science Education* 18, no. 3 (September 28, 2021): 525–41, <https://doi.org/10.36681/tused.2021.88>.

and evaluate information critically, and make decisions based on evidence and logic.<sup>9</sup> This skill is essential in everyday life, where inaccurate or misleading information can have a significant impact.

In order to improve the cognitive abilities of students, especially children who are still entering grade I of elementary school, the teacher's task in designing and implementing learning requires varied knowledge and skills, perhaps not all teachers have the ability to process and present learning themes that can explore all the potentials of children. The methods used tend to be monotonous, so that learning becomes boring for children.

### **Research Method**

This study uses a quantitative approach, with a positivistic paradigm. A homogeneous population, namely a population whose elements have the same characteristics, so that there is no need to question the amount quantitatively.<sup>10</sup> For example, a doctor who will see someone's blood type, then he only needs to take a drop of blood. The doctor does not need a bottle, because a drop and a bottle of blood, the results will be the same. In this study, the method used for the correlation test is Spearman (Spearman Rank Correlation Coefficient).<sup>11</sup>

This study uses offline questionnaire data, which is distributed randomly to students at the Kuala Kencana District Elementary School, Mimika Regency, Papua (YPJ Kuala Kencana Elementary School), in February 2025. The population in this study was all students in Class 1 at the Kuala Kencana District Elementary School, Mimika Regency, Central Papua. In February 2025. The population in this study consisted of class 1A, class 1B and class 1C, the number of students at YPJ Kuala Kencana Elementary School in February 2025 was 71 people, so the sample from Class

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<sup>9</sup> Andriyani, Sembiring, and Prastati, "Efektivitas E-Book Dalam Pembelajaran Bahasa Indonesia Ditinjau Dari Literasi Digital Sebagai Upaya Pemulihan Learning Loss (Studi Eksperimen Pada Siswa Kelas 5 Sekolah Dasar)."

<sup>10</sup> D.M. Mertens, *Research and Evaluation in Education and Psychology\_ Integrating Diversity With Quantitative, Qualitative, and Mixed Methods* (California: Sage Publications, 2009).

<sup>11</sup> Karlini Oktarina et al., "Meta-Analysis: The Effectiveness of Using Blended Learning on Multiple Intelligences and Student Character Education during the Covid-19 Period" 4, no. 3 (2021).

1A, class 1B and class 1C was 15 people. The total sample from each class 1A, class 1B and class 1C was 45 people. This study used a research instrument in the form of a questionnaire. To find the validity of the questionnaire, validity and reliability tests were carried out. The validity test was conducted to assess whether the measurement process aligned with the intended concept, ensuring that the questionnaire accurately reflected that concept. The data is considered valid if the score of each item significantly correlates with the total score of the construct.<sup>12</sup> The results of the validity test are carried out for each indicator. The following is the formula used to calculate the validity analysis, namely;

$$r = \frac{n\sum XY - (\sum X)(\sum Y)}{\sqrt{(n\sum X^2 - (\sum X)^2)(n\sum Y^2 - (\sum Y)^2)}}$$

**Information:**

r = Validity coefficient

N = Number of subjects

X = Comparative value

Y = Value of the instrument whose validity will be sought

The validity provisions of the instrument in the formula if  $r_{\text{count}}$  is greater than  $r_{\text{table}}$ . The basis for decision making,  $r_{\text{count}} > r_{\text{table}}$  then the variable is said to be valid, if  $r_{\text{count}} < r_{\text{table}}$  then it is stated as an invalid variable. Cronbach's alpha is used to measure the reliability of the indicators used in the research questionnaire. Data is said to be reliable if the Cronbach's Alpha value is above 0.5. Validity and reliability tests are processed using SPSS 23 software with data representatives of 30 respondents. Data from 30 respondents is used as a feasibility test to be continued into the study. It is known that the r-table value for the data is 30, then the df value  $(n-2) = 30 - 2 = 28$  with a significance level of 5% of 0.3610, so it can be said to be valid if the r-count value  $> r_{\text{table}}$ . If the research data is valid and reliable, the researcher will proceed to the next statistical test.<sup>13</sup>

<sup>12</sup> Sugiyono, *Statistika Untuk Penelitian* (Bandung: Alfabeta, 2012).

<sup>13</sup> Sugiyono, *Metode Penelitian Kuantitatif Kualitatif Dan R&D* (Bandung: Alfabeta, 2017).

Data analysis was carried out with Regression analysis is an analysis technique in statistics to determine the cause and effect relationship between one variable and other variables.<sup>14</sup> However, to facilitate multiple regression analysis, the researcher used calculations with SPSS 23 for windows. Two variables are said to be associated if the behavior of one variable affects the other variable. If there is no influence, then the two variables are called independent.

## Result and Discussion

Before describing the data, the author first conducted instrument testing, as explained in chapter 3. The following are the results of the instrument validity and reliability testing: Uji yang berikutnya adalah uji validitas, yang dapat diketahui dari *Corrected Item-Total Correlation*, dengan syarat *Corrected Item-Total Correlation*  $> 0,3$ . From the table above, it can be seen that  $Y_1$  and  $Y_2 > 0,3$ , then it can be stated that the question is valid. From the number of questions on variables  $X_1$  and  $X_2$ , there are 40 questions. The next test is the data normality test using Kolmogorov-Smirnov. The normality test is used to determine whether the data taken and then processed in this data analysis is normal and linear or not. Before describing the data, the author first conducted an instrument test. The following are the results of the instrument validity and reliability test.:

Table 1. EGRA reliability and validity test

Case Processing Summary			
		N	%
Cases	Valid	54	100.0
		0	.0
	Total	54	100.0
a. Listwise deletion based on all variables in the procedure.			

<sup>14</sup> I Ghazali, *Aplikasi Multivariate Dengan Proses SPSS* (Semarang: Universitas Diponegoro, 2005).

Table 2. Reliability

Reliability Statistics	
Cronbach's Alpha	N of Items
.759	2

Table 3

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
X <sub>1</sub>	7.1500	2.134	.480	.582
X <sub>2</sub>	7.2500	1.987	.676	.297

From the table above, it can be concluded that the Cronbach's Alpha value is 0.759, so if the Cronbach's Alpha value is  $> 0.60$ , it can be stated that the instrument is reliable. Here, the author uses as many questions as possible, after it is known that all are reliable.

The formulated hypothesis needs to be tested using multiple linear regression analysis. This test is conducted at a 95% confidence level or a significance level of 0.05 ( $\alpha = 5\%$ ). The results of the multiple linear regression analysis, performed using the SPSS (Statistical Product and Service Solutions) version 23.00 for Windows, are presented in Table 4 below.:



**Table 4**  
**Recapitulation Of Testing Results**  
**Multiple Linear Regression Analysis**  
**Between Independent Variables And Bound Variables**

Variable	B	Beta	T	Significance t	Information
Konstanta	0,782		2,330	0,022	
X <sub>1</sub>	0,399	0,419	4,900	0,000	Significance
X <sub>2</sub>	0,221	0,258	3,013	0,003	Significance
$t_{\text{tabel}} = 2,000$ $R = 0,721$ $R \text{ Square} = 0,492$ $Adjusted R \text{ Square} = 0,473$ $F_{\text{hitung}} = 25,801$ $Sig F = 0,000$ $F_{\text{tabel}} = 8,570$					

Data Source: Processed primary data, 2025

The R value is a multiple correlation coefficient that measures the level of relationship between the dependent variable and all independent variables that explain it together and its value is always positive. Table 4 shows an R value of 0.721, which means that there is a very close relationship between the dependent variables consisting of the variables: literacy development (X<sub>1</sub>), cognitive ability (X<sub>2</sub>) with the independent variable, namely the initial reading ability variable (Y) in grade I students of SD YPJ Kuala Kencana.

Meanwhile, the percentage of the influence of all independent variables on the value of the dependent variable can be seen from the size of the R Square or coefficient of determination (R<sub>2</sub>). R Square ranges from 0 to 1, with the note that the smaller the R Square number, the weaker the relationship between the two variables (and vice versa). Table 4 shows the coefficient of determination (R<sub>2</sub>) value of 0.492. This figure shows that the dependent variable is influenced by 49.2% by the independent variable. In other words, the initial reading ability variable (Y) used in the regression equation is able to contribute to the literacy development variable (X<sub>1</sub>), and the cognitive ability variable (X<sub>2</sub>) by 49.2%. While the remaining 50.8% is influenced by other variables outside the two independent variables analyzed in this study.

### **The Influence of Early Reading Skills on Student Literacy Development**

The influence of the early reading ability variable (Y) individually on the student literacy development variable ( $X_1$ ) which was tested using the t-test based on the questionnaire data that had been distributed and processed as explained in the previous sub-chapter.

Table 4 shows that the literacy development variable ( $X_1$ ) has a  $t_{\text{count}}$  of 4.900 and a  $t_{\text{table}}$  of 2.000 with a t significance of 0.000. Thus it can be said that the significance of  $t < \alpha$  ( $0.000 < 0.05$ ) and  $t_{\text{count}} > t_{\text{table}}$  ( $4.900 > 2.000$ ) so that  $H_0$  is rejected and  $H_a$  is accepted. This means that the early reading ability variable (Y) individually has a significant influence on the literacy development variable (Y).

This aligns with the belief that children's literacy experiences during the preschool years form a strong foundation for their future reading development. The knowledge, skills, and attitudes that support reading and writing at this stage are referred to as early literacy skills. Teaching preschool children should be engaging and enjoyable, as learning that lacks media or play-based methods tends to be less effective in optimizing the psychological, physical, and sensory development of children during this critical growth period.<sup>15</sup> Children need opportunities to explore, move, and fulfill their fundamental need to play. According to Vygotsky, children actively construct knowledge through their experiences, emphasizing the critical role of socio-cultural interactions in cognitive development. Therefore, a child's cognitive growth is significantly influenced by their interactions with those closest to them—particularly the ways in which parents provide stimulation and support for the development of early literacy skills.<sup>16</sup> For children, the home serves as their first school, with parents acting as their first teachers—and reading as their first lesson. When stimulated from an early age, children are more likely to acquire subsequent literacy skills with greater ease. Therefore, a structured literacy stimulation program at home is essential—one that is

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<sup>15</sup> Aprita and Kurniah, "Pengembangan Media Busy Book Untuk Meningkatkan Kemampuan Membaca Awal Dan Perkembangan Kognitif Anak Usia Dini (Studi Pada Anak Kelompok A PAUD Kota Bengkulu)."

<sup>16</sup> Ridha Annisa, Ringgi Rahmat Fitra, and Zakiah Fitri Wulandari, "Pengaruh Kebiasaan

Membaca Pada Perkembangan Kognitif Anak Slow Learner di Sekolah Inklusi,” *Jurnal Riset dan Pengabdian Interdisipliner* 2, no. 1 (January 20, 2025): 206–10, <https://doi.org/10.37905/jrpi.v2i1.30677>.

consistent, well-directed, and appropriately designed. Early reading skills play a crucial role in shaping and supporting the overall development of children's literacy.<sup>17</sup> This ability is the initial stage in the process of learning to read which involves letter recognition, sound recognition, and understanding written language symbols. Research shows that early reading skills are a strong predictor of later reading skills and academic success.

A literacy environment in the classroom that is rich in learning resources, such as books, symbols, and stationery, greatly supports the development of early reading skills in early childhood.<sup>18</sup> Classroom arrangements that support interaction with literacy resources provide learning experiences that stimulate early reading skills. In addition, literacy stimulation at home through reading activities with parents also contributes significantly to improving early reading skills in preschool children. Good early reading skills allow students to recognize words and sentences more easily, thereby increasing interest in reading and involvement in literacy activities. This has a positive impact on Indonesian language learning outcomes and mastery of other subject matter. The use of learning media such as big books has also been shown to significantly improve students' early reading skills. Overall, early reading skills play a major role in developing student literacy.<sup>19</sup> With strong early reading skills, students are better prepared to develop more complex literacy skills, such as critical reading, writing, and understanding various texts, which are essential for academic success and lifelong learning.

### **The Influence of Early Reading Ability on Students' Cognitive Ability**

The influence of the early reading ability variable (Y) individually on the student's cognitive ability variable (X<sub>2</sub>) which was tested using the t-test based on the

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<sup>17</sup> Yanti Hartini et al., "Evaluasi Program Gerakan Literasi Baca Tulis Di Sekolah Dasar," *MIMBAR PGSD Undiksha* 11, no. 1 (February 11, 2023): 110–20, <https://doi.org/10.23887/jjpgsd.v11i1.42891>.

<sup>18</sup> Yohana Aurelia Nay et al., "Gerakan Literasi Sekolah Sebagai Upaya Untuk Meningkatkan Minat Baca Peserta Didik Kelas IV SDK Wolomeli," *Didaktika: Jurnal Kependidikan* 13, no. 1 (February

1, 2024): 273–80, <https://doi.org/10.58230/27454312.461>.

<sup>19</sup> Rohayati Rohayati and Erna Budiarti, “Menumbuhkan Literasi Membaca Awal Melalui Permainan Tradisional Engklek Di TK Nurul Aulia Depok,” *Aksara: Jurnal Ilmu Pendidikan Nonformal* 8, no. 3 (September 1, 2022): 1715–24, <https://doi.org/10.37905/aksara.8.3.1715-1724.2022>.

questionnaire data that had been distributed and processed as explained in the previous sub-chapter.

Table 4 shows that the cognitive ability variable ( $X_2$ ) has a t count of 3.013 and a t table of 2.000 with a t significance of 0.003. Thus, it can be said that the significance of  $t < \alpha$  ( $0.003 < 0.05$ ) and  $t_{\text{count}} > t_{\text{table}}$  ( $3.013 > 2.000$ ) so that  $H_0$  is rejected and  $H_a$  is accepted. This means that the early reading ability variable ( $Y$ ) individually has a significant influence on the student's cognitive ability variable ( $X_2$ ).

This aligns with Piaget's theory, which states that cognitive development results from the interaction between brain and nervous system maturation and the individual's experiences that support adaptation to the environment. Children's cognitive development involves various advances in thinking processes, including increased ability to understand and use abstract symbols to interact with their surroundings, enhanced memory capacity, and improved reasoning and argumentation skills.

Children's cognitive abilities related to how children build their knowledge through the environment must be taught through counting activities presented by making the playing atmosphere fun and interesting for children.<sup>20</sup> Such an atmosphere is expected to make learning challenging for children so that children can easily build their own knowledge.<sup>21</sup> The stages in finding and building knowledge through a systematic thinking process and through concrete objects are expected to increase children's cognitive abilities.

Early reading skills are an important foundation in developing students' cognitive abilities. With good reading skills, students can access information, understand concepts, and develop critical thinking skills that support overall academic achievement. Therefore, strengthening early reading skills needs to be the main focus in basic

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<sup>20</sup> Annisa, Fitra, and Wulandari, "Pengaruh Kebiasaan Membaca Pada Perkembangan Kognitif

Anak Slow Learner di Sekolah Inklusi.”

<sup>21</sup> Ery Khaeriyah, Aip Saripudin, and Riri Kartiyawati, “Penerapan Metode Eksperimen Dalam Pembelajaran Sains Untuk Meningkatkan Kemampuan Kognitif Anak Usia Dini,” *AWLADY : Jurnal Pendidikan Anak* 4, no. 2 (September 30, 2018): 102–19, <https://doi.org/10.24235/awlad.v4i2.3155>.

education to support optimal children's cognitive development.<sup>22</sup> The implementation of literacy reading corners in kindergartens has also been shown to improve cognitive and language skills of early childhood through interactive reading and discussion activities. Routine reading habits contribute to better cognitive learning outcomes, because the longer the time students spend reading, the higher the learning outcomes they obtain.

### **The Influence of Early Reading Ability on the Development of Literacy and Cognitive Ability of Students Simultaneously**

The simultaneous significance test between the independent variables and the dependent variable in this study used the F test. Based on table 4 above, it can be seen that  $F_{\text{count}}$  shows a value of 25.801 with a significance of  $F = 0.000$ , while  $F_{\text{table}}$  shows a value of 8.570. Thus, it can be said that the Significance of  $F < \alpha$  ( $0.000 < 0.05$ ) and  $F_{\text{count}} > F_{\text{table}}$  ( $25.801 > 8.570$ ) so that  $H_0$  is rejected and  $H_a$  is accepted. This means that the independent variables simultaneously have a significant influence on the dependent variable.

Based on table 4 above, it can also be seen that the initial reading ability variable (Y) is the most dominant independent variable in influencing the dependent variable, namely the literacy development variable ( $X_1$ ) with a contribution of 0.419. This can happen because factors related to early reading skills have a significant influence on improving literacy development, and pre-school reading skills are the right effort to overcome problems related to learning activities, one of which is overcoming literacy development. After literacy development can be overcome, it will help improve students' cognitive abilities. While the early reading ability variable (Y) affects the cognitive ability variable ( $X_2$ ) with a contribution of 0.258. This is in accordance with what has been stated by various previous studies, that the crew's reading ability will be able to improve students' literacy development and also improve the students' cognitive abilities.

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<sup>22</sup> Agil Wahyu Wicaksono et al., "Meningkatkan Kemampuan Kognitif Melalui Metode Bernyanyi Pada Anak Usia Dini: Literature Review," *Indonesian Journal of Early Childhood: Jurnal Dunia Anak*



*Usia Dini* 4, no. 2 (August 24, 2022): 408–20, <https://doi.org/10.35473/ijec.v4i2.1635>.

Early reading skills play an important role in enhancing students' literacy development while improving their cognitive abilities. Research shows that good literacy movement skills, such as letter recognition, word recognition, and text comprehension, significantly contribute to children's reading abilities.<sup>23</sup> Strong reading skills enable students to comprehend information more effectively, which positively influences their critical thinking and problem-solving abilities—key components of cognitive development.<sup>24</sup>

In addition, reading literacy skills are also positively correlated with the ability to solve math story problems and understanding concepts in other subjects, indicating that reading literacy supports cognitive development in general.<sup>25</sup> Structured literacy activities supported by a conducive learning environment can improve students' learning achievements, including in the fields of language and science.

Furthermore, reading literacy is also closely related to students' communication skills, both oral and written, which are part of broader cognitive abilities. Thus, the development of early reading skills not only strengthens students' literacy but also improves their overall cognitive abilities, which have a positive impact on academic achievement and critical thinking skills.

Based on the results of hypothesis testing conducted through multiple linear regression analysis using both the F-test and t-test, it can be concluded that early reading ability and literacy development have a significant influence on students' cognitive abilities at SD YPJ Kuala Kencana.

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<sup>23</sup> Siti Aida, M. Nasirun, and Anni Suprafti, "Meningkatkan Keterampilan Membaca Awal Melalui Metode Struktural Analitik Sintetik," *Jurnal Ilmiah Potensia* 3, no. 2 (July 16, 2018): 111–18, <https://doi.org/10.33369/jip.3.2.111-118>.

<sup>24</sup> Ronalia Ronalia, "Increasing Motivation And Cognitive Learning Outcomes Of Grade 4 Elementary School Students In Science Subjects, Material On Changes In Form Of Objects Through The Project Based Learning (PjBL) Learning," *Jurnal Sadewa : Publikasi Ilmu Pendidikan, Pembelajaran Dan Ilmu Sosial* 2, no. 2 (April 19, 2024): 48–56, <https://doi.org/10.61132/sadewa.v2i2.741>.

<sup>25</sup> Sandhya Maranna et al., "Factors That Influence Cognitive Presence: A Scoping Review," *Australasian Journal of Educational Technology* 38, no. 4 (November 4, 2022): 95–111, <https://doi.org/10.14742/ajet.7878>.

## Conclusion

Based on the description above, it can be concluded that: 1) There is a significant influence between early reading ability and the development of student literacy at SD YPJ Kuala Kencana. This is indicated by the significance value of  $t$  which is smaller than  $\alpha$  ( $0.000 < 0.05$ ) and  $t$  count which is greater than  $t$  table ( $4.900 > 2.000$ ) 2) There is a significant influence between early reading ability and students' cognitive abilities at SD YPJ Kuala Kencana. This is indicated by the significance value of  $t$  which is smaller than  $\alpha$  ( $0.003 < 0.05$ ) and  $t$  count which is larger than  $t$  table ( $3.013 > 2.000$ ) 3) There is a significant influence between early reading ability on literacy development and cognitive ability simultaneously (together) at SD YPJ Kuala Kencana. This is indicated by the significance value of  $F$  which is smaller than  $\alpha$  ( $0.000 < 0.05$ ) and  $F$  count which is larger than  $F$  table ( $25.801 > 8.570$ ).

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