

## **The Effect of Scientific Approach on Early Reading Ability in Early Childhood Group A at Aidil Fitri 2 Kindergarten Palembang**

**Ulyy Sabrina<sup>1\*</sup>, Mardiah Astuti<sup>2</sup>, Lidia Oktamarina<sup>3</sup>, Febriyanti<sup>4</sup>, Indah Dwi Sartika<sup>5</sup>, Nyimas Atika<sup>6</sup>.**

<sup>1</sup>Universitas Islam Negeri Raden Fatah, Palembang, Indonesia, [ulisabrina2@gmail.com](mailto:ulisabrina2@gmail.com),

<sup>2</sup>Universitas Islam Negeri Raden Fatah, Palembang, Indonesia, [mardiahastuti\\_uin@radenfatah.ac.id](mailto:mardiahastuti_uin@radenfatah.ac.id),

<sup>3</sup>Universitas Islam Negeri Raden Fatah, Palembang, Indonesia, [lidiaoktamarina@radenfatah.ac.id](mailto:lidiaoktamarina@radenfatah.ac.id),

<sup>4</sup>Universitas Islam Negeri Raden Fatah, Palembang, Indonesia, [febriyanti\\_uin@radenfatah.ac.id](mailto:febriyanti_uin@radenfatah.ac.id),

<sup>5</sup>Universitas Islam Negeri Raden Fatah, Palembang, Indonesia, [indahdwisartika@radenfatah.ac.id](mailto:indahdwisartika@radenfatah.ac.id),

<sup>6</sup>Universitas Islam Negeri Raden Fatah, Palembang, Indonesia, [nyimasatika@radenfatah.ac.id](mailto:nyimasatika@radenfatah.ac.id),

### **ABSTRACT**

This research provides a background for an image that students in early reading have not developed optimally. With the title of the research on "The Effect of Scientific Approach on Early Reading Ability in Early Childhood Group A at Kindergarten Aidil Fitri 2 Palembang". The purpose of this study is to find out whether there is an influence of the Scientific Approach on Early Reading Ability in Early Childhood Group A at Aidil Fitri 2 Kindergarten Palembang. This type of research is an empirical discovery expos that are carried out systematically, the researcher does not control the independent variables. The number of samples amounted to 16 from educators, parents of students and students at Aidil Fitri 2 Kindergarten Palembang. Data collection techniques in the study used observation, questionnaires and documentation. The data analysis techniques used in this study used validity tests, reliability tests, normality tests and hypothesis tests. The results of the study showed that the results of the t-test of the t-value of the calculation (6,015) > the t-value of the table (1,745) with a sig value of 0.001 meant that there was an influence of the Scientific Approach (X) on the ability of Children's Early Reading (Y) at Aidil Fitri 2 Kindergarten Palembang. With the hypothesis value of Ho rejected and Ha accepted, it means that there is a significant influence of variable X on variable Y. With an R Squara value of 0.567 (56.7%). Therefore, it can be concluded that there is a significant influence between the Scientific Approach on Early Reading Ability in Early Childhood Group A at Aidil Fitri 2 Kindergarten Palembang with an actual percentage value of 56.7%, this is stated that the scientific approach has a strong influence on early reading ability in early childhood group A at Aidil Fitri 2 Kindergarten Palembang.

**Keywords:** Early Childhood; Reading Ability; Scientific Approach;

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## I. INTRODUCTION

Education aims to educate and provide children with basic abilities to develop themselves according to their talents and abilities and as a provision for children to continue their education at a higher level. (Atika, 2019). Development is a mental change that takes place gradually and over a certain time, from simple abilities to more difficult abilities, for example intelligence, attitudes and behavior. The growth and development of each child is different, some are fast and some are slow, depending talent (genetic), environmental factors (nutrition and care), and convergence (a combination of talent and environment). Therefore, treatment of children cannot be generalized, it is best to take into account the child's growth and development level (Susanto, 2018). One of the areas of development in the growth of basic abilities in kindergarten is language development. Language learning for early childhood is directed at communication skills, both verbally and in writing (symbolic). To understand

symbolic language, children need to learn to read and write. Therefore, language learning is often divided into two, namely learning language for communication and learning literacy, namely learning to read and write. According to Eliason in Susanto, the ability to learn to read requires time, patience and readiness. Children who like pictures or letters from the start of their development will have a desire to read, open new doors, fix information, and have fun (Susanto, 2018).

The scientific approach is a learning process that can be designed in such a way that students can actively construct concepts and principles through the stages of observing (to identify and find problems), formulating a problem, proposing and formulating hypothesis. A scientific approach can provide students with an understanding of recognizing and understanding material that uses a scientific approach (Hamdi, 2022). Sources of information are not only obtained from teachers, but information sources can be taken

anywhere and at any time (Silaban, 2018). The application of scientific learning in early childhood changes the paradigm teacher center become student center. Children are no longer seen as passive characters who only do what their teacher tells them to do, where children are not given the opportunity to express their ideas and interact with their environment. The scientific approach is an effort to solve problems in early childhood. In this scientific approach, four core competencies are developed which are written in the 2013 PAUD curriculum. These competencies include the domain of attitudes, the domain of knowledge and the domain of skills. Learning media for early childhood needs to pay attention to children's learning principles early age. There are also principles of learning in early childhood, including: 1). Children are active learners, 2). Children learn through sensors and five senses, 3). Children build their own knowledge, 4). Children think through concrete objects, 5). Children learn from the environment.

Beginning reading is learning to recognize the symbols, sounds of language and a series of letters, then connecting them with the meaning contained in the series of letters. So it can be concluded that early reading is the stage where children aged 4-6 years are still learning to recognize letter sound symbols, letter shapes and their meanings (Marlina, et al, 2022). Beginning reading begins with the child's ability to develop eye movements from left to right, with the sounds of the language they represent, reading simple words and sentences. The initial reading given to children aged 4-6 years aims to develop the basics of reading mechanisms (Erlina, 2019).

The condition of the children at Kindergarten Aidil Fitri 2 Palembang, the author sees the children can respond and focus on the material provided by the teacher (Hamdi, 2023). Apart from that, in the comprehension stage children can repeat what has been conveyed by the teacher so that it makes it easier for children to understand the pronunciation of letter sounds, mention the same

words and differentiate between letters, meaning that the ability to read early in early childhood has factors that influence the scientific approach in child. This is in line with research conducted by Suarni entitled "The Influence of a Scientific Approach on Cognitive Learning Outcomes in Theme 1 Group B at Kindergarten Balle Yogyakarta." The results of this research show that there is an influence between the scientific approach on learning outcomes for group B children, with the explanation that the Ha hypothesis is accepted (Suarni, 2023).

Improving initial reading learning is closely related to initial writing learning because before teaching writing, teachers must first introduce the sound of writing along with the sounds. through early reading learning. Not only that, a scientific approach will be given by the teacher as an effort to provide independence to children so they are able to think creatively in the way children say letter sounds, differentiate and give meaning to the words in learning

that they are spelled. (Musbikin, 2019).

The results of the information obtained by researchers on November 18 2023 for classroom teachers where teachers will try to motivate students in learning, so that children's initial reading learning tends to be more beneficial for students where students should already 1) be able to pronounce letter sounds, 2) children can name words that have the same letters, and 3) children can distinguish letters that have meaning. In learning, teachers try to implement learning that can improve children's initial reading skills, for example introducing the letters A-Z. Efforts made by teachers in Group A to master and achieve success in children's initial reading skills is where the teacher applies a scientific approach.

Scientific approach to learning, students are taught how to discover new knowledge, solve problems, think critically and create creativity. Through a scientific approach, students are accustomed to being able to discover and create things. Thus,

in the learning process based on science, the method is to lead students to acquire new knowledge by finding information, actively responding to problems and integrating it as initial knowledge.

## **II. METHOD**

In this research, the type of research used is quantitative research. Quantitative research can be interpreted as a research method that is based on philosophy positivism, used to research a certain population or sample, collection data using research instruments, data analysis is quantitative/statistical, with the aim of testing predetermined hypotheses.

Study Expost Facto In previous observations, researchers have obtained cause and effect based on research studies, namely that variables are caused by certain variables which make the parties involved make efforts to increase understanding. This is the same as the initial reading ability of group A children who are able to name, sound out the meaning of letters and differentiate letters

because the teacher uses a scientific approach during the learning process at Kindergarten Aidil Fitri 2 Palembang.

The sampling method used by researchers is saturated sampling. The sample for this research consisted of group A students at Kindergarten Aidil Fitri 2 Palembang with a total of 16 respondents coming from teachers, parents and students. Data collection techniques through observation, questionnaires and documentation. With technique data analysis through validity, reliability and hypothesis testing.

## **III. RESULTS AND DISCUSSION**

In this research, there is one hypothesis testing, namely the influence of the Scientific Approach on Children's Beginning Reading abilities at Kindergarten Aidil Fitri 2 Palembang.

### **a. Uji F**

The F test here is used to measure whether the independent variables are together with the dependent variable using probability values (themselves). The criteria for simultaneous

testing or that occurs in this thesis is that if  $F_{\text{count}} < F_{\text{table}}$  then there is no equal influence between the independent variables on the dependent variable, whereas if  $F_{\text{count}} > F_{\text{table}}$  then there is a simultaneous influence between the independent variables on the dependent variable. The same test used in this study program form windows SPSS v.26. can be seen on output ANOVA follows:

**Table of F Test Results**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0,067	1	0,067	3.520	.008 <sup>b</sup>
	Residual	3989,933	14	284,995		
	Total	3990,000	15			

a. Dependent Variable: Scientific Approach

b. Predictors: (Constant), Child's Beginning Reading

Based on the results data above, the calculated F is 3.520 and the sig is 0.088. F table at level  $\alpha = 0.05$  and k

is the number of independent variables.

$$\begin{aligned}
 F_{\text{table}} &= F(k : n - k) \\
 &= F(2 : 16 - 2) \\
 &= F(2 : 14) \\
 &= 3.74
 \end{aligned}$$

This means that  $F_{\text{count}} > F_{\text{table}}$  ( $3.520 > 3.74$ ) and  $\text{sig} < 0.05$  ( $0.008 < 0.05$ ), so it can be concluded that there is a significant influence between the independent variable (X) on the dependent variable (Y).

#### b. Uji T

This t test was used to find out whether there was an influence of the scientific approach on children's beginning reading at Aidil Fitri 2 Kindergarten, Palembang. So that through the results of data processing, researchers will derive hypotheses regarding the scientific approach to children's early reading. The t test results are as follows:

**T Test Results Table**

Coef ficie nts <sup>a</sup>						
Mod el		Unst anda rdize d Coeffi cient s		Stan dard ized Coef ficie nts	T	Si g.
		B	St d. Er ro r	Beta		
1	(Const ant)	53,3 14	2 0, 9 7 4		2, 5 4 2	0, 0 0 2
	Memba caPer mulaa n Anak	0,00 7	0, 4 8 4	0,00 4	6, 0 1 5	0, 0 0 1

Basically, decision making in determining the t test is to use significance values where the basis for decision making is if the calculated t value > t table and sig < 0.05, then the data is declared influential. Through this

data it can be seen that the calculated t value is 6.015, sig is 0.001 and t table is 1.745, sig is 0.001 and the t table is 1.745, which means that it is concluded that there is an influence of the Scientific Approach (X) on Children's Beginning Reading ability (Y) at Aidil Fitri 2 Kindergarten, Palembang. So Ho is rejected and Ha is accepted, meaning that there is a significant influence of the Scientific Approach as variable X on Children's Beginning Reading ability, variable Y.

**Tabel Hasil uji Determinasi (R Square)Model Summ Table of Determination Test Results (R Square) Model Summaryb ary<sup>b</sup>**

Mode l	R	R Squar e	Adjuste d R Square	Std. Error of the Estimat e
1	.044 a	0,567	0,071	16,882

Based on the test table determination (R Square) above, it is known that the R Square value is 0.567 (56.7%). This shows that where

The independent variable (scientific approach) has an influence on the dependent variable (children's initial reading) of 56.7%.

## DISCUSSION

Researchers statistically analyze the hypotheses that have been tested so that valid data processing samples are obtained using the help of the application program formwindows SPSS v.26 as an automatic calculation tool. The hypothesis that will be analyzed in this research is the influence of the Scientific Approach on Children's Beginning Reading Ability at Kindergarten Aidil Fitri 2 Palembang.

Therefore, to improve children's word reading abilities, especially in reading words and helping children understand the necessary words is an approach, one of the approaches used in this research is the scientific approach. According to (Hosnan, 2014: 34) "learning with a scientific approach is a learning process that is designed in such a way that students actively construct concepts, laws or principles through the stages of observing (to identify or find problems), formulating problems, proposing or formulating hypotheses

,collect data by technique-based, analyzing "found". Because the application of a scientific approach in learning involves process skills, such as observing activities, questioning activities, experimenting, associating activities and communicating. The learning process uses word cards, children play an active role in learning while the teacher acts as a facilitator.

Furthermore, looking at the data analysis and hypothesis testing, it is known that there has been a change in children's initial reading at Kindergarten Aidil Fitri 2 Palembang through a scientific approach. There are two important variables that will be the discussion points this time as well as having discussion points, namely the independent variable (scientific approach) and the dependent variable (children's beginning reading). This is intended to provide students with an understanding of recognizing and understanding various materials using a scientific approach, that information can come from from anywhere, at any time, not depending on unidirectional information from the teacher (Sandra, 2018).



In early childhood, reading skills are focused on teaching students to read. According to (Tampubolon, 1993:62) "early reading needs to be given, as an effort to foster interest and reading habits in children, and at the same time prepare them to enter basic education." Furthermore, (Tampubolon, 1993:63) explains that what is meant by early reading is: "reading that is taught programmatically (formally) to preschool children. Children who are taught to read early are generally more advanced in school than children who have never received early reading. ." Based on this opinion, it can be concluded that early reading or pre-reading is the teaching of reading and sounding out the letters presented which is given to children who are just learning to read in formal education institutions as preparation for learning to read in elementary school.

The form of strengthening the scientific approach used by teachers in improving the beginning reading skills of children aged 4-5 years at Kindergarten Aidil Fitri 2 Palembang is a form of child-centred learning, learning to shape student self

concept as well as providing opportunities for children to assimilate and accommodate concepts, laws and principles, then learning increases children's learning motivation and teachers' teaching motivation (Setiadiman, 2016).

The way to collect data on whether a child's initial reading ability is improving is through a scientific approach, namely through observation, questionnaires and documentation. Questionnaires for the scientific approach were given to parents as representatives of their students and The child's initial reading is given to the teacher. For parents who fill out the scientific approach questionnaire who are not waiting for their children to go to school, they can ask the child directly, or also to the parents of students who are waiting for their children to go to school. Researchers confirm this by observation, or direct observation. After getting the data, then analyze it using normality and hypothesis tests.

Through a scientific approach by teachers, children will feel encouraged and have the motivation to give feedback. This response is

given to good behavior and shows an increase in recognizing letters as a beginning reader. In line with Bialystok's opinion, the purpose of reading is the meaningful interpretation of written/printed verbal symbols (Bialystok, 2017). Reading activities are closely related to the introduction of letters, the sound of a series of letters, or meaning and understanding of meaning. As explained in the previous chapter, the scientific approach is learning that encourages students to carry out scientific skills such as observing, asking, collecting information and communicating. Meanwhile, initial reading ability in early childhood who have achieved reading success in accordance with the stated learning objectives. After conducting research, it was found that there was a significant influence between the scientific approach on early reading abilities in early childhood. As evidence from the calculation of the results of the hypothesis test confirms that the  $t$  test results have a  $t$  value count  $(6.015) > t$  value table  $(1.745)$  with a sig value of  $0.001$ , meaning that there is an influence of the Scientific Approach (X) on children's Beginning

Reading abilities (Y) at Kindergarten Aidil Fitri 2 Palembang. With the hypothesis value  $H_0$  rejected and  $H_a$  accepted.

#### **IV. CONCLUSION**

Based on the results of research that has been carried out previously, it can be concluded that the influence of the scientific approach on the beginning reading abilities of early childhood group A at Kindergarten Aidil Fitri 2 Palembang is obtained by the results of the  $t$  test  $t$  value. count  $(6.015) > t$  value table  $(1.745)$  with a sig value of  $0.001$ , meaning that there is an influence of the Scientific Approach (X) on children's Beginning Reading abilities (Y) at Kindergarten Aidil Fitri 2 Palembang. With the hypothesis value  $H_0$  being rejected and  $H_a$  being accepted, it means that there is a significant influence of variable X on variable Y. With an R rating Squara amounted to  $0.567$  ( $56.7\%$ ). So that a precise explanation of the influence can be obtained. significant between the Scientific Approach to Beginning Reading Ability in Early Childhood Group A at TK Aidil Fitri 2

Palembang with an actual percentage value of 56.7%, it is stated that the scientific approach has a very strong influence on beginning reading ability in children.

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