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The Influence of The Scientific Learning Approach Assisted by Froggy Jumps on The Indonesia Language Learning Outcomes of Grade IV Elementary School Students

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ABSTRACT

The purpose of this study was "to determine the influence of the Scientific Learning Approach assisted by Froggy Jumps on the learning outcomes of Indonesian language of grade IV students of SD Negeri 09 Makarti Jaya". The methode used in this study was Pre-experimental with a One-Group Pretest-Posttest design. The population and sample of this study were all grade IV students at SD Negeri 09 Makarti Jaya with a total of 17 students. The data collection was carried out using tests in the form of Pretest and Posttest. The result showed that the average result of the initial Pretest test score 50.35 and the average result of the final Posttest test score 86.70. The result of the hypothesis test showed a t count value 3.303 and a t table value of 2.131 (*t count > t table*) so that Ho was rejected and Ha was accepted. It can be concluded that there is an influence of the Scientific Learning Approach assisted by Froggy Jumps on the learning outcomes of Indonesian language of grade IV students of SD Negeri 09 Makarti Jaya.

1. Introduction

Education is one of the processes carried out by each individual to achieve goals that improve quality (Sabagestra, et al. 2022). Education is a conscious and planned effort to create an atmosphere and learning process so that students can achieve their potential in the form of religious strength, self-control, personality, intelligence, noble morals, and the skills needed by themselves, society, nation and state (Muzdallifah, et al. 2023). Education itself must create an interesting learning environment and process so that students actively develop their potential and become a superior generation of the nation that is qualified and competent in three dimensions, namely the dimensions of attitude, knowledge, and skills (Ermawati & Amalia, 2023).

The independent curriculum is a curriculum with various intracurricular learning so that students are more optimal and have concepts and strengthen their competencies. And also teachers have the freedom to choose teaching materials that are suitable and appropriate for their students that are adjusted to the learning needs and interests of each individual student (Mulyasa, 2021:54). The Scientific Learning approach is a combination of a learning process that focuses on 5M, namely

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observing, asking, reasoning, trying, communicating (Silvia & Hardiyanto, 2019). Meanwhile, through the Scientific Learning Approach, it has a positive influence on teachers and students (Amirudin, et al. 2020) because learning refers to the scientific thinking process that trains systematic and holistic thinking. The Scientific Learning Approach not only sees learning as an estuary but rather builds interconnected knowledge that is reflected in process skills, to explore and elaborate on subject matter, in addition to providing the widest possible opportunity for teachers to explore students' knowledge according to the abilities and needs of students (Nasir 2017).

The Scientific Learning approach is learning that uses a scientific approach, where students play a direct role both individually and in groups to explore concepts and principles during learning activities, while the teacher's job is to direct students and provide corrections to the concepts and principles obtained by students. The appearance of Educaplay Froggy Jumps is also interesting because it is in the form of a frog game jumping on leaves to reach the end of the river with the condition that the questions answered must be correct so that the frog does not drown so that students are expected to understand the material explained so that students work on the questions in the media. Various existing features that can make students actively understand the material to get a more enjoyable learning experience make students actively spark student understanding related to the material to get a more enjoyable learning experience (Batitusta & Hardinata, 2024: 2686).

Learning Indonesian in elementary school is one of the subjects that can be used to develop student activities. Language is a means of communication, meaning learning to communicate has goals that are no different from other learning goals, namely to acquire knowledge, skills, creativity, and attitudes. Language skills in the school curriculum include four aspects, namely: listening skills, speaking skills, reading skills, and writing skills (Muhammad, 2020). Digital-based Indonesian language and literature learning is a strategy to increase students' interest and skills in Indonesian language and literature, where this strategy is driven by the Independent Curriculum which emphasizes digital literacy education (Tri, et al. 2025).

Based on the Pre-observation of the Homeroom Teacher of Class IV of SD Negeri 09 Makarti Jaya, the teacher said that the teacher had used various models, approaches, methods, and learning media, such as using PPT media but had never used Educaplay Froggy Jumps. The problems found in this class IV are: students still have difficulty in working on the questions given, students still have difficulty in solving problems in groups, students still have difficulty in speaking directly in front of the class, students are still not fluent in reading, and there are still students who sometimes cannot read their own writing. The researcher provides a solution to use the Scientific Learning Approach assisted by Educaplay Froggy Jumps so that students find it easier to answer questions given by the teacher using Educaplay Froggy Jumps because the appearance is attractive and easy to use, the teacher creates groups so that students find it easier to solve a problem and also get used to working in groups to achieve common goals through 5M observing, asking, reasoning, trying, and communicating in the Scientific Learning approach.

Based on previous research conducted by Gede, et al. (2021) entitled "Using the Scientific Approach to Improve Indonesian Language Learning Outcomes" with the conclusion that the scientific approach is very suitable for use in Indonesian language learning. The results of this study can also be used as a reference, that the scientific approach can be collaborated with learning media. Furthermore, research from Setiawan, et al. (2020) entitled "Increasing Student Activeness in Indonesian Language Subjects" with the conclusion that the results of the study show that student activeness can be increased. The increase in student activeness is in line with learning objectives using a scientific approach. Furthermore, research from Putu, (2019) entitled "The Effect of the Scientific Approach with Audio Visual Media on Writing Skills in Indonesian Language Learning" with the conclusion that learning using a scientific approach with audio visual media has a significant effect on

Indonesian language writing skills. The three studies that have been conducted show that the Scientific Learning approach has an effect on student learning outcomes, therefore the implementation of the Scientific Learning approach can be used as an alternative in efforts to improve elementary school student learning outcomes.

Based on the background above, the focus and sub-focus of the problems that have been explained above, the formulation of the problem in this study is whether there is an influence of the Froggy Jumps-assisted Scientific Learning Approach on the Indonesian Language Learning Outcomes of Grade IV Students of SD Negeri 09 Makarti Jaya. This study aims to determine whether there is a significant influence of the use of the Froggy Jumps-assisted Scientific Learning Approach on the Indonesian Language Learning Outcomes of Grade IV Students of SD Negeri 09 Makarti Jaya.

2. Methodology

This study uses an experimental method with a quantitative approach according to Sugiyono (2024:111) the experimental method is a research method used to determine the effect of independent variables (treatment) on dependent variables (outcomes) under controlled conditions. With the Pre-Experimental design, because the sample is not selected randomly and only uses 1 class. The design design using One-Group Pretest-Posttest is a design that includes pretest-posttest. Thus the results of the treatment can be known more accurately, because it can be compared with the conditions before being treated (Sugiyono, 2024:113-114).

The sample in this study was 17 students of grade IV of SD Negeri 09 Makarti Jaya, with 11 male students and 6 female students consisting of one class. With the Nonprobability sampling technique, it is a sampling technique that does not provide equal opportunities/opportunities for each population to be selected as a sample (Sugiyono, 2024:136), with a saturated sampling type because the sample is relatively small, less than 30 students.

3. Results

Learning outcomes are obtained through research instruments in the form of tests, where there are 2 (two) tests, namely Pretest and Posttest. Before being given treatment, this Pretest question is given to determine the extent of students' initial knowledge in learning Indonesian assisted by Froggy Jumps through the Scientific Learning Approach. After being given the Pretest question, the class is then given treatment, namely the story material "Good Cooperation" which is assisted by Froggy Jumps through the Scientific Learning Approach, and then given a Posttest question to determine the learning outcomes of students at SD Negeri 09 Makarti Jaya, the following is a table of Pretest-Posttest results.

Table 1 Pretest and Posttest Results

Number	Student Name	*Pretest*	Completion Criteria	*Posttest*	Completion Criteria
1	KS	32	Incomplete	58	Incomplete
2	DP	24	Incomplete	68	Incomplete
3	NA	24	Incomplete	66	Incomplete
4	MH	68	Incomplete	100	Complete
5	AN	70	Incomplete	100	Complete
6	ZAA	88	Complete	100	Complete
7	A	64	Incomplete	100	Complete
8	SNA	58	Incomplete	76	Complete
9	BS	36	Incomplete	84	Complete
10	W	30	Incomplete	58	Incomplete
11	MRAP	58	Incomplete	88	Complete
12	RPA	32	Incomplete	100	Complete
13	RNU	88	Complete	100	Complete

14	MA	70	Incomplete	100	Complete
15	AA	68	Incomplete	100	Complete
16	SA	22	Incomplete	100	Complete
17	FS	24	Incomplete	76	Complete
	Valid	**17**	-	**17**	-
	Mean	**50.35**	-	**86.70**	-
	Median	**58.00**	-	**100.00**	-
	Mode	**24.00**	-	**100.00**	-
	Std. Dev	**23.33**	-	**16.30**	-

It can be seen from the table above that the average student learning outcomes have increased, showing an average pretest result of **50.35** and a posttest result of **86.70** with a difference of 36.35.

3.1 Normality Test

To find out whether the student learning outcome data, both pretest and posttest in the class, is normal or not, a normality test is carried out using the Shapiro Wilk test. The results of the data are stated in the following table:

	Shapiro-Wilk			
	Statistic	Statistic	df	Sig.
Pretest	.201	.897	17	.062
Posttest	.208	.910	17	.099

Based on the SPSS output above, it can be seen that the sig value of the Pretest is **0.062 > 0.05**, so the data is normally distributed and the Posttest is **0.099 > 0.05**, so the data is normally distributed. Based on the Shapiro Wilk test, it can be stated that the pretest and posttest values are normally distributed.

3.2 Homogeneity Test

After the Normality Test is carried out, the next step is to carry out the Homogeneity Test, namely to find out whether the data from the class is homogeneous or not, as stated in the following table:

Table 3 Homogeneity Test

		Levene Statistic	df1	df2	Sig.
Hasil belajar	Based on Mean	3.654	1	32	.065
	Based on Median	1.019	1	32	.320
	Based on Median and with adjusted df	1.019	1	30.892	.321
	Based on trimmed mean	3.811	1	32	.060

Based on the table above, the Levene value is shown in the row of values based on mean, which is 3.654 with the sig value obtained is **0.065> 0.05** which means that the data is homogeneous.

3.2 Hypothesis Test

Hypothesis Testing The test used in this study is the Independent T-test which is carried out by

comparing the results of the Pretest and Posttest values. The comparison is presented in the following table:

Table 4 Comparison of Pretest and Posttest Score

	KODE	N	Mean	Std. Deviation	Std. Error Mean
HASIL	*PRETEST*	17	50.35	23.337	5.660
	POSTTEST	17	86.70	16.308	3.955

Based on the "Group Statistic" output table above, it is known that the average value of student learning outcomes or the mean for the Pretest is **50.35** and the Posttest is **86.70**. Thus, descriptively statistically, it can be concluded that there is a difference in the average student learning outcomes between the Pretest and Posttest values.

Table 5 Independent T-test Result

	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig	t	df	Sig (2-tailed)
Equal variances assumed	6.295	.017	3,303	15	.000
Equal Variances not assumed			3,303	28.618	.000

Based on the calculation results of the Independent Sample T-Test on the results of the data analysis obtained a significant value (2-tailed) of 0.000 <0.05, there is a significant difference in the Pretest and Posttest values. The results of the t count calculation of 3.303 and t table 2.131 stated t count> t table, so Ho is rejected and Ha is rejected. It can be concluded that there is an Influence of the Scientific Learning Approach Assisted by Froggy Jumps on the Learning Outcomes of Grade IV Students of SD Negeri 09 Makarti Jaya.

4. Conclusions

Based on the results of the study, it can be concluded that the research conducted at SD Negeri 09 Makarti Jaya with the research title "The Effect of Scientific Learning Approach Assisted by Froggy Jumps on Indonesian Language Learning Outcomes of Grade IV Students of SD Negeri 09 Makarti Jaya" can be seen from the difference in the results of the Pretest 50.35 and Posttest 86.70 and the results of the hypothesis testing obtained a sig value (2-tailed) 0.000 <0.05 05 then there is a significant difference in the Preset and Posttest values. The results of the hypothesis testing t count of 3.303 and t table of 2.131. (t count> t table) then it can be stated that Ho is rejected and Ha is accepted, which states that there is a significant influence on learning outcomes.

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