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THE INFLUENCE OF DIGITAL LEARNING MEDIA AND ACHIEVEMENT MOTIVATION ON STUDENTS' BASIC LITERACY SKILLS

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ABSTRACT

The goal of this study was to determine how student achievement motivation and the use of digital learning media affected primary school kids' literacy abilities. With a pretest-posttest control group design, this study is a quasi-experimental investigation. Three public elementary schools in West Pasaman Regency—SD Negeri 02 Pasaman, SD Negeri 03 Pasaman, and SD Negeri Pasaman—with a combined enrollment of 20 pupils each were used for this study. 60 students make up the sample in this study. Both tests and questionnaires were employed as data gathering tools. The following types of data analysis were used: the Normality test, the homogeneity test, the F test, the one-way ANOVA, and the follow-up test or Post Hoc. Results of the ANOVA test and statistical tests were calculated using the significance levels (sig.) = 0.000 and () = 0.05. This demonstrates that the rise in the N-gain score for literacy skills and the attainment of posttest scores differ. Digital learning tools have improved literacy skills by 79.28 percent (high category). This is better than traditional learning with a score of 52.77 including the medium category and learning with solely digital learning material in experimental class 2 with a value of 68.01 including the medium category.

Keywords: Digital Learning Media, Achievement Motivation, Basic Literacy Ability

INTRODUCTION

In the current era of globalization, education functions as a bridge to connect humans with their environment so that they can function as superior human resources (Rahayu et al., 2022). Educational activities in the learning process are very important to study because this activity is a process that must be mastered by a teacher. Therefore, it is important to have quality human resources who can master, understand, and use science and technology. There are many technologies that can be used to support learning in schools, especially in the current era of globalization. One of these technologies is the internet (Mashudi, 2021).

With the internet, students will be able to collect information about the lessons they need quickly and without limitations, which will improve the student's learning experience and encourage active participation in class activities (Sasmita, 2020). In addition to the internet, other uses of technology can be in the form of computers and smartphones that can also be used for learning (Tondang & Arwita, 2020). All industries, including the

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education sector, have been influenced by modern technology in the field of communication with products in the form of hardware and software equipment. To carry out teaching and learning activities, communication technology is needed for educational purposes, learning technology, and learning media (Zen, 2018).

Students can use the internet to facilitate learning by using digital media, such as instructional videos and to help students become more literate in teaching and learning activities. This is intended so that by using digital learning media, students will be able to achieve their learning goals well. Learning objectives will be successful if the necessary learning components are present and complex (Prayogi & Estetika, 2019). The learning process will be hampered if there are learning components that are lacking or do not match student demands. Teachers, students, teaching materials, learning media, and other factors all contribute to learning. Learning media is one that has a significant impact (Hasnan et al., 2020).

Learning media functions as an additional tool for teachers to deliver learning materials to students. Learning media will facilitate students' access to information in the form of teaching materials offered by the teacher, so that good mastery of learning media is required from both teachers and students (Sitepu et al., 2021). With the existence of digital-based learning media that can later be seen by students, both when at school when the teacher uses or instructs students to watch learning videos that have been made by the teacher, or when at home students watch learning videos given by their teachers which can be accessed on cellphones, laptops, computers and so on (Gusmuliana et al., 2020). This will be able to foster students' literacy skills in carrying out the learning process, and with the existence of these learning media, it will make students interested in learning so that it will lead to an increase in student learning outcomes at school (Hariyadi, 2018).

Teachers and students must be imaginative and innovative in creating a comfortable learning environment considering the advancement of technology in education. Both play an important role in finding information to support learning, which can be done through various media. It is possible to develop strong literacy skills in elementary school with the help of effective teaching tools. Reading and writing skills are basic indicators of literacy skills. The success of the younger generation can be measured by their reading and writing skills, among others (Setiawan & Saputri, 2020). Realizing that literacy is the key to building a nation that is insightful and cultured, literacy development is needed from the elementary school age (Subandiyah, 2017).

Based on the results of interviews with teachers, it is known that teachers rarely provide learning to train students' literacy skills. Teachers only deliver learning materials in front of the class using lecture and question and answer methods. On average, students are less active in asking questions or giving opinions, so that students seem to participate less in the learning process. Based on the results of the interview questionnaire with students, it is known that on average students are less interested and enjoy conventional learning that has been carried out by teachers because students feel bored just listening to the material. Teachers have never used innovative learning that can be developed especially in students' basic literacy which will later lead to students' 21st century skills. Students act as recipients of information and are rarely trained to dare to convey their ideas. Teachers only explain

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learning through lecture, discussion and question and answer methods without providing variations in other learning models, so that it will have a negative impact on students' literacy skills. Teachers also rarely use digital learning media during classroom learning.

The results of initial observations of students' literacy skills are still not good, as evidenced by findings in elementary schools with 60 students revealing an average score of 65.7% of students' learning outcomes did not meet the KKM, and 34.3% of students had met the KKM score. Students do not fully understand the subject matter, which requires logical thinking and meaningful literacy skills. In addition, teachers continue to teach with traditional techniques, making students feel bored. This is due to the learning context that is far from students' lives and the material is difficult to understand. Students need learning aids or media as a bridge for them to achieve learning goals. Students still find it difficult with the material because it is unclear and far from the context of life or the learning environment. Based on the results of the initial evaluation, the problem in this study is the low basic literacy skills of students and the minimal use of digital learning media.

In this study, a digital learning media will be used to measure the improvement of students' literacy skills. Students' basic literacy skills will also be seen from the level of students' learning motivation. In this study, the term motivation refers to achievement motivation. By understanding a person's motivation or motive when associated with achievement, it will have its own meaning and more precisely express the requirements around the drive or demands for a different image of achievement in a person (Septianthari et al., 2023). The tendency to succeed or achieve the desired end result is what is meant by achievement motivation. A person's participation in a task and Wanting to succeed in a particular task and the desire to overcome challenges or struggles to do challenging tasks quickly and accurately, with motivation that spurs achievement and improves students' literacy skills, especially basic literacy skills (Damanik, 2020).

The skills to acquire, understand, and use something intelligently are known as literacy skills. Several activities can be used to train these skills including reading, viewing, listening, writing, and speaking all related to literacy (S.Sirate & Ramadhana, 2017). One of the factors that influence the quality of human resources is literacy skills because literacy skills have a significant impact on a person's perspective, mindset, and behavior (Shabrina, 2022). Literacy skills are skills that students can use in various aspects of life and are very important to gain access to broader educational programs.

Because literacy skills are needed to anticipate the negative impacts of the rapid flow of information in this digital era, it is very important to master them early on, especially for students in elementary school. There must be environmental cooperation between parents, schools, and the environment where students interact so that students' literacy skills grow. This is in line with the results of research conducted by (Sulasmi, 2022) which states that many internal and external factors have an impact on students' literacy skills. Most students in elementary school use technology for direct experience, fun, and to satisfy curiosity. Students do not yet know how to use digital media effectively, therefore advice from those closest to them such as parents and teachers is very important so that students who play gadgets do not fulfill some of their duties and obligations.

If students have basic literacy skills, students will gain new insights and information,

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improve interpersonal skills, improve students' understanding of the meaning of information, improve critical and analytical thinking skills, help students focus and concentrate better, and optimize brain performance because it is often used for reading and writing activities (Harahap et al., 2022). Innovation is needed to improve students' literacy skills considering the importance of these basic literacy skills. The purpose of this study was to determine how the use of digital learning media and students' achievement motivation affect the literacy skills of elementary school students.

METHODS

This section should be described concisely and clearly to allow experiments to be repeated. For commonly used methods, a simple reference is sufficient. Avoid references that are not readily accessible.

This study uses a quantitative experimental research design. The experimental research method is a quantitative research technique used to determine, under controlled conditions, the effect of the independent variable (treatment/treatment) on the dependent variable (outcome) (Restu, H.R. Marwan Indra Saputra, Aris Triyono, 2021). This study aims to describe or explain the relationship between the independent variable and the dependent variable in the form of numbers that will be processed statistically by seeking information about existing symptoms, clearly defined objectives. Therefore, it is said to be quantitative because the presentation of research results uses statistical figures. To achieve this, collect data to be used as a basis for reporting (Adhi Kusumastuti, 2020). This study is a quasi-experimental study with a "pretest-posttest control group design" design. The design is described as follows:

Table 1: Nonequivalent Control Group Design

Group	Pretest	Treatment	Posttest
Experiment 1	Y1	X1	Y2
Experiment 2	Y1	X2	Y2
Control	Y1	-	Y2

Description:
X1: Digital Learning Media and Achievement Motivation
X2: Achievement Motivation
Y1: Pretest
Y2: Posttest

In this study, the dependent variable (Y) is basic literacy skills, and the first and second independent factors are digital learning media (X1) and achievement motivation (X2). In West Pasaman Regency, this study was conducted in three public elementary schools, namely SD Negeri 02 Pasaman with 20 students, SD Negeri 03 Pasaman with 20 students, SD Negeri Pasaman with 20 fifth grade students in Pasaman Regency. The sample of this study was 60 students. The instruments used in data collection were questionnaires and tests. The questionnaire was used to measure students' achievement motivation and the test was used to see students' basic literacy skills. The data are quantitative and qualitative. In particular, qualitative data are descriptive in nature consisting of pretest, post-test, and N-gain results. Quantitative data were analyzed using the following four steps: 1) Normality test; 2) homogeneity test; 3) hypothesis test using the F test or one way ANOVA; and 4) Further test to determine the learning model with significant differences in improvement using Post Hoc Test analysis.

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RESULT

In this study, students' basic literacy skills were assessed in experimental classes 1 and 2 using digital learning media and achievement motivation, and in the control class using conventional teaching methods. Before and after the learning process, a literacy skills questionnaire was given to measure the research objectives. The following figure illustrates the data found:

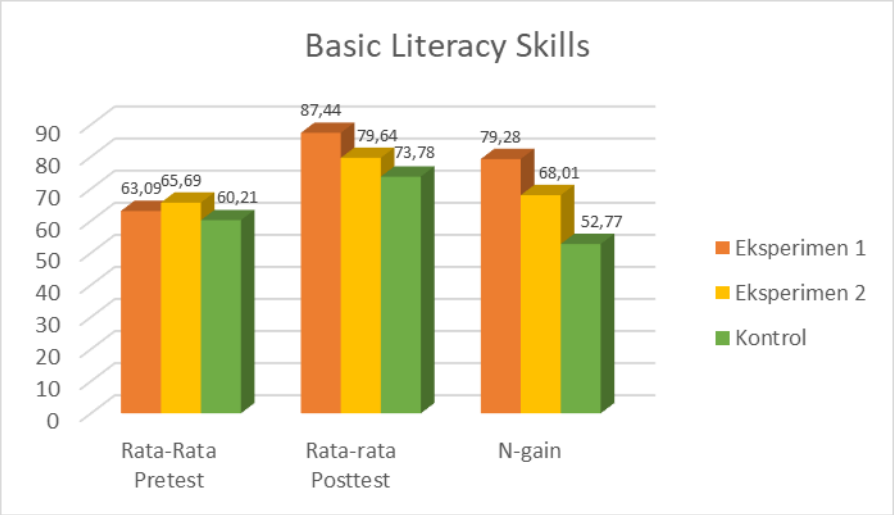

Figure 1. Pretest, Posttest, and N-Gain Values of Students' Basic Literacy Skills

Based on the image above, the literacy pretest scores of students in experimental class 2 are higher than the pretest scores in experimental class one and control class, which are 65.69, 63.09, and 60.21, respectively. The average posttest score in the first experimental class is higher than the ratio in the second experimental class and control class, which are 87.44, 79.64, and 7378, respectively. In addition, the increase in literacy skills N-gain of the first experimental class is higher than the average score of the second experimental class and control class, with an average of 79.28, 68.01, and 52.77. Based on the N-gain criteria, the increase in literacy skills of students in experimental class 1 is in the high category while experimental class 2 and the control group are in the medium category. Descriptively, learning using digital learning media and achievement motivation has a greater influence on the achievement and improvement of literacy skills compared to conventional approaches. From the description above, it is known that digital learning media and achievement motivation have an influence on students' communication skills, which are applied to experimental class 1 and it is clear that there is an increase in the average value of students' literacy skills, namely 63.09 in the pretest and 87.44 in the posttest, which means that students feel happy and active in learning with digital learning media. In experimental class 2, learning with digital learning media is used but without measuring achievement motivation. There is an increase in students' literacy skills in this class but it is not significant and there is not much improvement in students' literacy skills. The same thing also happened in the control class. In the control class, conventional learning was used without special media and learning. Thus, it can be concluded that digital learning media and achievement motivation have an influence on increasing the average value of elementary school students' literacy skills.

To find out whether the influence is significant, a statistical test was carried out. Based on the normality and homogeneity tests of the three class groups, the pretest and posttest

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score data, as well as the N-gain of literacy skills are normally and homogeneously distributed. The results of the one-way ANOVA test showed that the pretest scores of students in the three study groups were not significantly different. This shows that the initial representation skills of students in the three learning groups are relatively the same. The differences at the end of learning are caused by the media used. The test results are shown in the following table:

Table 2. Normality of Literacy Skills Data

Tests of Normality							
	Class	Kolmogorov-Smirnov			Shapiro Wilk		
		Statistics	df	Sig.	Statistics	Df	Sig.
Literacy Skills	Pretest Experiment 1	,117	60	,168	,913	60	,085
	Posttest Experiment 1	,126	60	,153	,927	60	,081
	Pretest Experiment 2	,162	60	,128	,918	60	,128
	Posttest Experiment 2	,171	60	,200	,971	60	,269
	Posttest Control	,138	60	,192	,856	60	,135
	Posttest Control	,127	60	,200	,944	60	,089

Based on the table above, the results of the Shapiro-Wilk normality test for experimental class 1, experimental class 2 and control class obtained a significance greater than 0.05, which means that the data is normally distributed. The results of the homogeneity test can be seen in the following table:

Table 3. Homogeneity of Literacy Skills Data

Test of Homogeneity of Variances			
Communication Skills			
Levene Statistics	df1	df2	Sig.
,273	5	58	,581

Based on the table above, it can be concluded that the literacy skills data have the same or homogeneous variance because the homogeneity test of literacy skills (pretest-posttest) in experimental classes 1 and 2 and the control class obtained a significance value of 0.581 or greater than 0.05 (0.581> 0.05), statistical level 0.273. Hypothesis testing was also carried out because the data was homogeneous and normally distributed, namely the ANOVA test shown in the table below:

Table 4. The Results of Anova Test

Data		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Post-test	Between Groups	65,683	2	2,068	19,006	.000
	Within Groups	117,405	58	,967		
	Total	186,672	60			
N-gain	Between Groups	.385	2	284	13,678	.000

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	Within Groups	.683	58	)37		
	Total	1,290	60			

The table above is the result of the ANOVA test and the statistical test results obtained calculate the level of significance (sig.) = 0.000 <level of significance (α) = 0.05. This shows a difference between the achievement of posttest scores and the increase in the N-gain value of literacy skills in learning using a digital learning model with achievement motivation in experimental class 1, using digital learning media in experimental class 2, and conventional learning in the control class. To find out a more significant increase, further testing was carried out. The following is the Post Hoc Test analysis using the Scheffe test in the following table:

Table 5: Scheffe Test Results

Data	Class (X)	Class (Y)	Mean Difference (XY)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Posttest	Experiment 1 Experiment 2	Experiment 2	1.206	.472	.134	-39	3.67
		Control	2.105*	.472	.000	1.36	5.06
		Control	1,420*	.472	.006 3	.101	3.94
N-Gain	Experiment 1 Experiment 2	Experiment 2	.26784*	.04681	.000	.1579	.4692
		Control	.57971*	.04681	.000	.4792	.6841
		Control	.26893*	.04681	.000	.2578	.3082

The average difference in achievement and improvement of students' literacy skills in each class shown in the Mean Difference column obtained by calculation using the SPSS application is positive. The highest difference in achievement and improvement of literacy skills between the digital learning media class with achievement motivation and the conventional class are 2.105 and 0.57971, respectively. The second highest difference in average achievement and improvement is between the digital and conventional learning media classes, which are 1.420 and 0.26893, respectively.

In this study, digital learning media with achievement motivation affects students' literacy skills, the results obtained have shown a better improvement compared to conventional learning in the control class. The increase in literacy skills with digital learning media was 79.28 (high category). This is higher than learning with digital learning media alone in experimental class 2 with a value of 68.01 including the moderate category and conventional learning with a value of 52.77 including the moderate category. In addition, digital learning media with achievement motivation can develop and improve students' skills. This can happen because the natural learning process is related to real life and provides opportunities for students to be active in learning, constructing, discussing, finding out, and solving real problems outside the classroom. According to (van der Vleuten et al., 2019) learning that involves students in practicing and communicating through various representations leads to a richer learning environment. This is in line with Bruner's concept (Mantri et al., 2019) which states that the mechanism of how the world around students develops has an impact on how students learn. The conclusion is that if teachers provide opportunities for students to learn concepts, theories, rules, or experiences through examples seen in real life, the learning process will be successful and efficient. Thus, it can be said that the use of digital learning media combined with achievement motivation has a major impact on improving the literacy skills of elementary school

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students.

CONCLUSION

Based on the findings and analysis, it is clear that digital learning media and achievement motivation have a great influence on students' basic literacy skills. Digital learning media with achievement motivation affects students' literacy skills, the results obtained have shown a better improvement compared to conventional learning in the control class. The increase in literacy skills with digital learning media was 79.28 (high category). This is higher than learning with digital learning media alone in experimental class 2 with a value of 68.01 including the moderate category and conventional learning with a value of 52.77 including the moderate category.

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