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Digital Literacy-Based Reciprocal Teaching Learning Model on Indonesian Learning Outcomes

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Abstract

One way to improve the quality of education through information technology is to implement digital culture in schools. The study was conducted to see the effect of the digital knowledge-based reciprocal teaching model on Indonesian learning outcomes. This research is a quasi-experimental research with a nonequivalent control group design. The population is grade VI students of SD Negeri Parang Tambung 1 Makassar City with a sample of 36 students based on Isaac and Michael's table. Observation, documentation and tests as data collection techniques. The data analysis technique uses a t test with the condition that it meets the normality and homogeneity tests. The results showed a significant influence of reciprocal teaching learning models based on digital literacy on Indonesian learning outcomes. This can be seen from the hypothesis test obtained 0.021 so that the value of sig. (2tailed) < 0.05. The implementation of the learning process using a reciprocal teaching model based on digital literacy in grade VI students of SD Negeri Parang Tambung 1 Makassar City is said to be good. This is seen from the activeness and independence of students during the learning process, increasing student learning outcomes and seen from the implementation of aspects observed on the obervasi sheet in learning.

Keywords: *Reciprocal Teaching Learning Model, Digital Literacy, Learning outcomes*

Introduction

Skills and abilities in doing something can never be separated from existing education. When we talk about education, we're talking about preparing generations. With ordinary science elevates a person's degree and glory. As Allah Almighty has said in Q.S. Al-Mujadalah verse 11.

يٰٓاَيُّهَا الَّذِيْنَ اٰمَنُوْٓا اِذَا قِيْلَ لَكُمْ تَفَسَّحُوْا فِى الْمَجٰلِسِ فَافْسَحُوْا يَفْسَحِ اللّٰهُ لَكُمْ ۚ وَاِذَا قِيْلَ انْشُزُوْا فَانْشُزُوْا يَرْفَعِ اللّٰهُ الَّذِيْنَ اٰمَنُوْا مِنْكُمْ ۙ وَالَّذِيْنَ اُوْتُوا الْعِلْمَ دَرَجٰتٍ ۗ وَاللّٰهُ بِمَا تَعْمَلُوْنَ خَبِيْرٌ

Translation of (Kementrian Agama Republik Indonesia, 2019)

11. O believers, when it is said to you "Give space in the assemblies," be spacious, surely Allah will give space for you. When it says, "Stand up," (you) stand up. Allah will

undoubtedly raise believers among you and those who are given some degree of knowledge. Allah is meticulous about what you do.

There are also many hadiths of the Prophet that encourage and emphasize, even oblige his people to seek knowledge (Qutub, 2011). As the word says Rasulullah Muhammad SAW:

طلب العلم فريضة على آل مسلم

It means: "Studying is an obligation to every Muslim." (HR. Ibn Majah)

Based on this verse, it is explained that there is a command to study for humans, both men and women. Studying activities cannot be separated from education, so education is a necessity that needs to be lived in studying. One of them can be taken through formal channels (schools). This formal education is a forum for interaction between teachers (teachers) and students (students).

The teacher acts as a motivator and plans all activities that students will do. As a motivator, teachers must be able to develop student motivation to actively participate in teaching and learning activities. Teaching Indonesian requires the right model and approach so that students more easily understand the material and solve problems related to the material taught. The model used must be able to make teaching and learning situations enjoyable.

The rapid development of information technology in the current era of globalization has a huge impact on the world of education. One way to improve the quality of education through information technology is to implement digital culture in schools. Digital literacy is the ability to understand and use digital technology optimally (Munir, 2014). Digital literacy teaches a person to use digital technology and think critically about the information he receives.

Observations that have been made at SDN Parang Tambung 1, found that there are still many students who have low learning outcomes. In Indonesian subject, students are still passive and not independent in the teaching and learning process so that their learning outcomes have not met the Minimum Completeness Criteria (KKM), which is 70. Of the 40 students, 77.08% (27 students) are still below KKM and the number of students who fully meet KKM standards is only 22.92% (13 students). The cause of students' lack of independence in learning is that there are students who do not pay attention to the teacher during learning so that when given assignments, students have difficulty completing the task. Many students talk to other students when the teacher teaches, students' lack of curiosity about the material being studied, and there are still many students who are embarrassed to ask questions when they do not understand the material being taught. This shows that the learning process carried out by teachers and students has not been optimal.

One way to improve student learning outcomes is to use a digital literacy-based *reciprocal teaching* learning model. The digital literacy-based *reciprocal* teaching learning model is a learning model in the form of teaching material to his friends (Aris, 2014). Digital Literacy-based *Reciprocal Teaching* applies four independent understanding strategies, namely summarizing material, compiling questions and solving them, explaining the knowledge they have gained, then predicting the next question from the problems presented to students (Nurwahidah & Handayani, 2012). This learning is designed so that students can

be more independent in the learning process so that students are not only recipients of information from the teacher.

The Digital Literacy-based *Reciprocal Teaching* model is expected to be suitable for use in Indonesian learning whose material has many concepts for students to understand. The *Digital Literacy-based* Reciprocal Teaching model is one alternative that can be used in strategies that provide opportunities for students to be more independent in the learning process. Some relevant research results that underlie the researcher's interest in studying further about the reciprocal teaching learning model *are: (1) The influence* of the reciprocal teaching *learning model* on the science learning outcomes of grade V students of SD Negeri 1 Tulamben; (2) The Effect of *Reciprocal Teaching* Learning Assisted by Mind Maps on Learning Outcomes and the Ability to Write Articles in Social Studies Learning Grade VI Students of SDN 1 Dadaprejo, Batu City, East Java Province. The two studies have similarities in research, namely both examine *reciprocal teaching learning models,* but there are differences in their application. This research will implement a reciprocal teaching learning model that leads to digital literacy skills.

Method and Data

This research is a *quasi-experimental* research with *nonequivalent control group design.* The population in this study was 40 students of grade VI SD Negeri Parang Tambung 1 Makassar City. In this study the sample taken amounted to 36 students with a population of 40 students based on the table of *Isaac* and *Michael* for a level of significance of 0.05, so the sample obtained had a level of confidence of 38% in the population (Sugiono, 2017). Observation, documentation and tests as research data collection techniques with test instruments in the form of multiple-choice questions with 4 answer choices. The data analysis technique uses a t test with the condition that it meets the normality and homogeneity tests.

Results

After the implementation of activities in the study, a description of *pretest data was presented* which was the result of the learning test of experimental group students and the control group before applying the *digital literacy-based reciprocal teaching* model. In the experimental group, the *mean* or average value of student *pretest* learning outcomes was 57.89 out of the ideal score of 100 achieved by students in the sufficient category. Standard deviation 16.52, this result shows the distribution *of pretest learning outcomes* in the experimental group spread from a minimum score of 30 to a maximum score of 80 with a range or range of 50. The mode is 70 and the median is 60.

In the control group, the *mean* or average value of *student pretest* learning outcomes was 58.42 out of the ideal score of 100 achieved by students in the sufficient category. The standard deviation of 14.62 shows the distribution *of pretest* learning outcomes in the control group spread from a minimum score of 20 to a maximum score of 80 with a range of 60. The mode is 70 and the median is 60.

Table 4.1 *Pretest Learning* Outcomes Categories Experimental and Control Groups

Score Category	Experiment		Control	
	Frequency	Percent	Frequency	Percent
Very good 85-100	0	0	0	0
Good: 70-84	9	47.4	8	42.1
Enough 55-69	1	5.3	4	21.1
Less 40-54	8	42.1	6	31.6
Very Less 0-39	1	5.3	1	53.3
Sum	19	100	19	100

After applying *the digital literacy-based* reciprocal teaching model in the experimental group, *posttest* data on the learning outcomes of control group students and experiments were presented to compare with *pretest data* obtained before the application of the learning model.

The Experimental Group Student Learning Outcomes data is *the mean* or average value of *student posttest* learning outcomes of 77.36 out of the ideal score of 100 that may be achieved by students in the good category. Standard deviation 10.45, this result shows the distribution *of posttest learning outcomes* in the experimental group spread from a minimum score of 50 to a maximum score of 90 with a range or range of 40. The mode is 80 and the median is 80. While the Control Group Student Learning Outcomes Data, namely *the mean* or average value of *student posttest* learning outcomes 71.05 out of the ideal score of 100 that may be achieved by students is in the good category. Standard deviation 11.49, this result shows the distribution *of posttest* learning outcomes in the control group spread from a minimum score of 40 to a maximum score of 80 with a range or range of 40. The mode is 80 and the median is 70.

Table 4.2 *Posttest* Learning Outcomes Categories Experimental Group and Control Group

Shoes Category	Experiment		Control	
	Frequency	Percent	Frequency	Percent
Very good 85-100	4	21.1	0	0
Good: 70-84	13	68.5	15	79
Enough 55-69	1	5.3	2	10.5
Less 40-54	1	5.3	2	10.6
Very Less 0-39	0	0	0	0
Sum	19	100	19	100

The Effect of Digital Literacy-Based Reciprocal Teaching Model on Learning Outcomes Indonesian
Before conducting a hypothesis test, an assumption test is carried out consisting of a normality test and a homogeneity test.

The normality test is carried out to find out whether the data that has been obtained is normally distributed or not. Normality test data is obtained from *pretest* and *posttest results of* student learning outcomes. The test criterion is that the data are normally distributed if the significance obtained > 0.05. Conversely, it is said that the data is not normally

distributed if the significance obtained < 0.05. The following are the results of the normality test *of the pretest* and posttest *data of the experimental group and the control group.*

Table 4.3 Pretest and Posttest Normality Test Results

Data Normality	Kolmogrov Smirnov	Information
Pretest Experiment	0.189	0.189 > 0.05 (Normal)
Posttest Ekperrimen	0.230	0.230 > 0.05 (Normal)
Pretest Control	0.161	0.161 > 0.05 (Normal)
Posttest Control	0.218	0.218 > 0.05 (Normal)

Sumber: *IBM SPSS Statistics Version 20*

The table above shows that the data of *the pretest and posttest* results of the *experimental and* control groups are normally distributed because the significance obtained > 0.05. The next stage tests whether the research subjects are from the same variant or not. The homogeneity testing criterion is if the sig value. $\alpha > 0.05$, then the data is homogeneous. If the value of sig. $\alpha < 0.05$, then the data is not homogeneous. The results of the data homogeneity test can be seen in Table 4.10 below:

Table 4.4 Pretest and Posttest Homogeneity Test Results

Statistics	***Pretest***		***Posttest***	
	Experimental group	**Control group**	**Experimental group**	**Control group**
Sig value. α	0.179		0.775	
A	0.05			
Decision	Homogeneous		Homogeneous	

Source: *IBM SPSS Statistics Version 20*

Based on table 4.4, it can be concluded that both groups are derived from homogeneous variance due to sig values. greater than 0.05.

Hypothesis testing is carried out using the T test through SPSS 20 software. Posttest data testing *is* carried out to determine whether there is an influence of the use of *reciprocal teaching models* on student learning outcomes. The data requirement is said to be significant if the value of *sig. (2-tailed)*< 0.05.

Based on the results of the tests carried out showed a value of sig. 0.021 is smaller than 0.05 so that H_1 is accepted and rejects H_0 at the level of significance 0.05. This shows that there are differences in scores when given different treatments, namely the use of *reciprocal teaching* models based on digital literacy in the experimental group and the use of conventional models in the control group . Where, there is a significant influence on the application of *reciprocal teaching* models based on digital literacy on learning outcomes Indonesian grade VI SD Negeri Parang Tambung 1.

Discussion

The results of this study show that the application of the Digital Literacy-Based *Reciprocal Teaching* model in learning in experimental groups affects Indonesian learning outcomes. Where the mean value of the experimental group is higher compared to the control group. The *Reciprocal Teaching* model trains student activeness in learning so that student independence can emerge so that learning outcomes increase. Student learning independence through the *Reciprocal Teaching* approach increases student learning independence (Rohaeti & Suwardi, 2013).

The difference in learning outcomes occurred because the experimental group used *a digital literacy-based Reciprocal Teaching learning model that applies four learning strategies, namely clarifying, making questions, predicting, and making conclusions, in accordance with the* reciprocal teaching steps (Setianingsih et al., 2019) are (1) grouping students and discussing in groups, (2) asking questions, (3) presenting The results of group work, (4) clarify problems, (5) provide practice questions containing development questions and (6) conclude lesson materials.

Students will be more active in discussing in their groups about solving a problem and exchanging knowledge that has been gained. Students are free to use their way to learn in groups or not fixated on the material delivered by the teacher so that students will actively seek knowledge that has not been conveyed by the teacher. While in the control group, students tended to only receive information that was shared by the teacher. The absence of knowledge exchange activities between students causes knowledge to be obtained only from what they understand.

During the discussion, students are given the opportunity to explore information about the material learned with their group mates. Students can ask each other questions and exchange information that has been obtained. After discussing with peers, students are created a larger discussion group, namely class discussion. This discussion with peers can support active learning and the development of student communication skills so that student learning outcomes can be affected and improved. The existence of group discussions can support the achievement of active learning with effective communication so that there is an influence on student learning outcomes (Afriana, 2017).

All stages in learning using *the reciprocal teaching* model are proven to affect Indonesian learning outcomes. The four stages in the *reciprocal teaching* model summarized in the discussion sheet can train students to actively and independently explore their knowledge. According to (Ketong et al., 2018) the advantages of *the Reciprocal Teaching* model, which can train students to learn without a teacher, foster the courage to express opinions, and train students to find important things from what is learned. In this study, the advantages found from the application of the *Reciprocal Teaching* model are cultivating students' talents, especially in speaking and developing attitudes, students pay more attention to lessons, cultivate the courage of students to argue and speak in front of the class. (Lestari & Widyaningrum, 2016) suggest that reciprocal teaching has a positive impact on students' communication skills, because during learning students ask questions, comment on other friends' answers.

Conclusions

The use of *reciprocal teaching* learning models based on digital literacy affects student learning outcomes in grade VI SD Negeri Parang Tambung 1 Makassar City. This can be seen from the hypothesis test obtained 0.021 so that the value of *sig.* (2tailed) < 0.05, it is known that there is a significant influence. The implementation of the learning process using *a reciprocal teaching model* based on digital literacy in grade VI students of SD Negeri Parang Tambung 1 Makassar City is said to be good. This is seen from the activeness and independence of students during the learning process, increasing student learning outcomes and seen from the implementation of aspects observed on the obervasi sheet in learning.

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