CREATIVE PROBLEM SOLVING LEARNING MODEL USING QUIZIZZ APPLICATION ON STUDENTS' LEARNING OUTCOMES IN INDONESIAN LANGUAGE SUBJECTS IN GRADE VIII OF SMP NEGERI 1 CINA, BONE REGENCY

PENGARUH MODEL PEMBELAJARAN *CREATIVE PROBLEM SOLVING* BERBASIS TEKNOLOGI MENGGUNAKAN APLIKASI *QUIZIZZ* TERHADAP HASIL BELAJAR SISWA PADA MATA PELAJARAN BAHASA INDONESIA KELAS VIII SMP NEGERI 1 CINA KABUPATEN BONE

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Abstract

The use of technology in education is an alternative to improve the quality and quantity of results and processes, including sources in learning where teachers and students are required to actively use technology in the teaching and learning process. This research is a quantitative research with a quasi-experimental method . The purpose of this study was to determine the effect of the use of creative problem solving learning media based on technology using the Quizizz application on student learning outcomes in the Indonesian language subject of class VIII SMP Negeri 1 Cina, Bone Regency. The research was conducted in March-May 2024. The research location was at SMP Negeri 1 Cina, Bone Regency. Respondents were 35 students consisting of 19 male respondents and 16 female respondents. Data analysis techniques used the help of excel and spss applications. The results of the study showed that there was an effect of the use of creative problem solving learning media based on technology using the Quizizz application on student learning outcomes p value <0.05. the conclusion of this study is that there is an effect of the use of creative problem solving learning media based on technology using the Quizizz application on student learning outcomes.

Keywords: Creative Problem Solving in technology-based using the Quizizz application , Student learning outcomes

Abstrak

Penggunaan teknologi dalam pendidikan merupakan alternatif untuk meningkatkan kualitas dan kuantitas hasil dan proses, meliputi sumber-sumber dalam pembelajaran dimana guru dan peserta didik dituntut aktif untuk menggunakan teknologi dalam proses belajar mengajar. Penelitian ini adalah penelitian kuantitatif dengan metode *quasi eksperimen*. Tujuan penelitian ini adalah untuk mengetahui pengaruh penggunaan media pembelajaran *creative problem solving* dalam berbasis teknologi menggunakan aplikasi *Quizizz* terhadap hasil belajar siswa pada mata pelajaran Bahasa Indonesia kelas VIII SMP Negeri 1 Cina Kab. Bone. Penelitian dilaksanakan pada Maret-Mei 2024. Tempat penelitian di SMP Negeri 1 Cina, Kab. Bone. Responden sebanyak 35 siswa yang terdiri dari 19 responden berjenis kelamin laki-laki dan 16 responden berjenis kelamin perempuan. Teknik analisis data menggunakan bantuan aplikasi *excel* dan spss. Hasil penelitian menunjukkan bahwa terdapat pengaruh penggunaan media pembelajaran *creative problem solving* dalam berbasis teknologi menggunakan aplikasi *Quizizz* terhadap hasil belajar siswa p value < 0.05. kesimpulan dari penelitian ini yaitu ada pengaruh penggunaan media pembelajaran *creative problem solving* dalam berbasis teknologi menggunakan aplikasi *Quizizz* terhadap hasil belajar siswa.

Kata Kunci: *Creative Problem Solving* dalam berbasis teknologi menggunakan aplikasi *Quizizz*, Hasil belajar siswa

1. INTRODUCTION

The development of increasingly sophisticated technology in the modern era has penetrated into various aspects of life, including the world of education. Many believe that the use of technology can make the learning process easier, more effective, practical, and faster. Current technology knows no age limits, so it can be used by all groups, from children to adults.

In the world of education, the use of technology is an alternative to improve the quality and quantity of learning outcomes. Teachers and students are required to be more active in using technology in the teaching and learning process. The development of science and technology accompanied by the demands of globalization has encouraged tight competition in providing quality human resources (HR). Education, as a conscious effort to humanize humans, has an important role in forming superior HR.

Law Number 20 of 2003 concerning the National Education System Article 1 states that education is a conscious and planned effort to create a learning atmosphere and learning process that allows students to actively develop their potential. This includes aspects of religious spirituality, self-control, personality, intelligence, noble morals, and skills needed for themselves, society, nation, and state. Therefore, activating students in the learning process can be done by creating harmonious interactions between students and educators in the classroom.

In learning, knowledge is obtained, formed and developed by students, while teachers are tasked with creating conditions and situations that allow students to build meaning from the teaching materials provided. To create interesting learning and increase student interest, educators need to use innovative media. One of the media that can be used is the Quizizz application , which provides a learning experience through interactive quiz games.

The way the learning experience is presented by the teacher greatly influences the effectiveness of learning. Learning experiences that involve conceptual elements will help students understand the material better and improve cooperation in groups. The teaching and learning process is no longer just a matter of conveying knowledge from the teacher to students, but rather a complex arrangement of activities so that learning objectives are achieved. Therefore, an innovative learning model is needed so that students are more active and independent in seeking and understanding knowledge. One of the learning models that can be used is the Creative Problem Solving learning model . The Creative Problem Solving learning model based on technology is one approach that can improve the effectiveness of learning. According to (Suhendri, 2013) the creative problem solving learning method is a systematic learning method consisting of stages of presenting problems to students, then students solve the problem appropriately, and can communicate or express opinions verbally about the analysis of the problem and its solution.

SMP Negeri 1 Cina has produced competent students in this millennial era. However, the application of technology in the learning process, especially in the Indonesian language subject, is still lacking. Therefore, the use of a technology-based Creative Problem Solving learning model with the Quizizz application is one solution to increase the effectiveness of learning. Based on this background, the researcher is interested in conducting a study entitled "The Effect of the Technology-Based Creative Problem Solving Learning Model Using the Quizizz Application on Student Learning Outcomes in the Indonesian Language Subject of Class VIII SMP Negeri 1 Cina, Bone Regency."

2. RESEARCH METHOD

This research is a quantitative research with a quasi-experimental research approach . According to (Rukminingsih, 2020) Quasi-experimental research is a research design that involves at least two groups, namely the experimental group that is given a certain treatment and the control group that does not receive the treatment. The research design used in this study is the One-Group Pretest Design research method , which is included in the Pre-Experimental Design (Nondesign) research. In this design, the test is carried out twice, namely the pretest before treatment and the posttest after treatment. The treatment in this study is the use of the Quizizz application in learning Indonesian.

The population in this study were all students of class VIII at SMP Negeri 1 Cina, consisting of class VIII A (32 students), class VIII B (30 students), and class VIII C (34 students). The sampling technique was carried out using the probability sampling method , which is to provide an equal opportunity for each member of the population to become a sample (Sugiyono, 2014) . Sampling was carried out randomly with a lottery system, and the results showed that classes VIII A and VIII C were selected as experimental groups, while class VIII B was designated as the control group.

The instruments used in this study include observation, tests, and documentation. Observations were conducted to observe student activities during learning, while tests were

used to measure student understanding before and after using the Quizizz application. This test is in the form of 10 multiple-choice questions related to Indonesian language material. Documentation is in the form of photos and notes during the learning process.

The data obtained were analyzed using descriptive and inferential statistics with the help of SPSS 22.00 software. The normality test was carried out using Kolmogorov-Smirnov to determine whether the data was normally distributed or not. If the data was not normally distributed, then the analysis was carried out using the Wilcoxon Signed-Rank Test, which is a nonparametric test to compare two groups of paired data.

Hypothesis testing is done by looking at the p-value:

- If the p value > 0.05 then H0 is accepted and Ha is rejected, which means there is no significant influence between the variables.
- Conversely, if the p value <0.05 then H0 is rejected and Ha is accepted, which means there is a significant influence between certain variables.

$$t = \frac{\overline{D}}{\sqrt{\frac{\sum D^2 - \frac{(\sum D)^2}{N}}{N(N-1)}}}$$

Information:

T = Coefficient sought 37

$\overline{D}$ = (difference), the difference between the pretest and posttest scores for each individual.

D = Mean of the difference values

D^2 = Square of D

N = Sample

3. RESULTS AND DISCUSSION

Research result

1. Overview of Research Location

   SMP Negeri 1 Cina is one of the educational units with junior high school level in Arasoe Village, Cina District, Bone Regency, South Sulawesi. In carrying out its activities, SMP Negeri 1 Cina is under the auspices of the Ministry of Education and Culture. SMP Negeri 1 Cina provides electricity to support teaching and learning activities. The electricity source used by SMP Negeri 1 Cina comes from PLN. Learning at SMP Negeri 1 Cina is carried out in the morning until the afternoon. In a week, learning is carried out for 6 days. SMP Negeri 1 Cina has an A accreditation.

2. Description of Learning Outcomes of Technology-Based Creative Problem Solving Using the Quizizz Application

   Table 4.3 Description of Learning Outcomes of Technology-Based Creative Problem Solving Using the Quizizz Application

Interval mark	Category	Pretest	Posttest

		Amount student	P (%)	Amount student	P (%)
0 – 39	**Very low**	0	0%	0	0%
40 – 54	**Low**	20	57.1%	0	0%
55 – 74	**Currently**	12	34.2%	7	20.1%
77 – 89	**Tall**	3	9.6%	16	45.7%
9 – 100	**Very tall**	0	0 %	12	34.2%
Amount		**35**	**100%**	**35%**	**100%**

Based on the table above, it can be seen that there are 35 students who follow the problem solving learning model . Creative Problem Solving learning based on technology using the quiziz application , no students get very low category scores, 20 students get low category scores with a percentage of 57.1%, 12 students get medium category scores with a percentage of 34.2%, 3 students get high category scores with a percentage of 9.6%, and no students get very high category scores.

Learning outcomes after participating in technology-based Creative Problem Solving learning after using the quiziz application , no students obtained very low and low category scores, there were 7 students who obtained medium category scores with a percentage of 20.1%, there were 16 students who obtained high category scores with a percentage of 45.7%, and there were 12 students who obtained very high category scores with a percentage of 34.2%.

Based on the data above, it is known that technology-based Creative Problem Solving learning using the quizizz application is higher than before the application of the technology-based Creative Problem Solving learning model using the quizizz application . A high level can be seen from the indicators of analyzing, evaluating, and creating.

3. Normality Test Analysis

Creative Problem Solving Learning Outcomes Using the Quizizz Application .

	Kolmogorov-Smirnov			**Shapiro Wilk**		
	Statistics	df	Sig.	Statistics	df	Sig.
Pretest	.259	35	.000	.870	35	.001
Posttest	.252	35	.000	.866	35	.001

Judging from the normality test results table, it states that Kolmogorov Smirnov: respondents > 30 people and Sig < 0.05 = data is not normally distributed.

4. Homogeneity Test Analysis

Creative Problem Solving Learning Outcomes Using the Quizizz Application

		N	Mean Rank	Sum of Ranks
Posttest - Pretest	Negative Ranks	0 a	.00	.00
	Positive Ranks	33 b	17.00	561.00
	Ties	2 c		
	Total	35		

Source: Data Primary, 2024

Judging from the previous table, the nonparametric test is considering The data is not normally distributed and is not homogeneous so it is carried out test Wilcoxon. Results test mark Wilcoxon Signed Rank, obtained difference flat-flat before And after done treatment, as following:

a. No there is negative rank or decline mark
b. Positive rank or difference positive from pre-test with post-test. There is 33 Respondent Which experience improvement mark
c. Ties or similarity mark pre-test And post test experienced by 2respondents .

5   Analysis Test Hypothesis with Test Wilcoxon Signed Rank

Table 4.5 Wilcoxon Test Analysis of Creative Problem Learning OutcomesSolving Technology Based Using the Quizizz App

	Posttest - Pretest
Z	-5.091 b
Asymp. Sig. (2-tailed)	.000

Source: Data Primary, 2024

Based on the table, the Asymp. Sig. (2-tailed) value recorded is 0.00, which means p value <0.05. This states that the hypothesis is accepted and it is proven that there is a significant impact of using the Quizizz application on improving student learning outcomes in the Indonesian Language subject in class VIII of SMP Negeri 1 Cina, Bone Regency.

This study proves that the application of the technology-based Creative Problem Solving learning model by utilizing the Quizizz application has been proven to be able to improve student learning outcomes in the Indonesian Language subject at SMP Negeri 1 Cina, Bone Regency.

DISCUSSION

This study aims to determine the effect of the creative problem solving learning model

based on technology using the Quizizz application effectively on student learning outcomes in the Indonesian language subject for class VIII at SMP Negeri 1 Cina, Bone Regency. Based on the research results that have been described, it can be concluded that technology-based creative problem solving learning using the Quizizz application is effective in improving student learning outcomes in the Indonesian language subject for class VIII at SMP Negeri 1 Cina, Bone Regency.

According to Solikah (2019) quizizz is an online quiz platform that can be combined in the form of a game and used as a learning medium. Quizizz is used in Indonesian language learning activities to create an interesting and fun student learning area and stimulate students' cognitive development playing while learning through the learning process. This was proven in class VIII B at SMP Negeri 1 Cina as an experimental quantitative class after the implementation of the quizizz learning media could have a significant influence on their learning outcomes.

Based on the results of data analysis on the learning outcomes of class VIII B students at SMP Negeri 1 Cina, it is known that the highest pretest score is in the less category, namely 57.1%, while the highest posttest score is in the high category, namely 45.7%. The results of the pretest conducted in class VIII B before the implementation of the quizizz learning media , there were 3 students who completed above the KKM, namely 75. While after the implementation of the quizizz learning media, the posttest results showed that 28 students obtained completion above the KKM. In accordance with these results, it can be said that the implementation of this quizizz media has experienced a significant increase.

This is in line with the opinion of (Anwar, 2016) which states that learning media has a positive influence in improving the quality of student learning outcomes, the use of Quizizz provides a fun and challenging learning experience, which allows students to learn in a more effective and efficient way.

However, despite significant improvements, there are still obstacles that need to be overcome in implementing this technology. One of them is the inadequate network quality in schools. Technology-based learning media such as Quizizz require a stable internet connection to ensure a smooth learning process. Disruptions in network quality can prevent students from joining the quiz on time, which ultimately affects the ranking system and their learning experience. Therefore, improving network infrastructure in schools is essential to ensure that all students can access and utilize this learning technology to its full potential.

In addition, there are also problems related to limited device access. Some students do not bring the phones needed to access the Quizizz application , which can hinder the smooth learning process. The solution implemented in the experimental class is to allow students who do not bring phones to borrow their deskmate's phone, but this still requires more attention in terms of fulfilling technology access for each student.

However, the positive impact of using Quizizz is very clear from the change in the learning atmosphere which is more active and enjoyable. A statement from an Indonesian language teacher shows that before using Quizizz , many students felt bored and

unenthusiastic about following the lesson. However, with Quizizz, students become more enthusiastic and active in learning. This shows that the use of game-based learning media not only improves learning outcomes, but also creates a more dynamic and interesting learning environment for students.

This study also strengthens the findings of previous studies, such as those conducted by Cahyani Amildah (2020), which also showed that the use of game-based learning media, such as Quizizz, can improve student learning achievement. This indicates that the application of technology-based learning media is very effective in increasing student motivation and learning outcomes, as well as providing opportunities for students to develop critical thinking and problem solving skills.

Overall, the results of this study indicate that the Quizizz application can be used as an effective learning medium to improve student learning outcomes. This success can be achieved through the implementation of a fun game-based learning approach, which encourages students to be more actively involved in the learning process. However, to maximize the potential use of this technology, it is necessary to improve network infrastructure and the availability of devices that can be accessed by all students. Thus, the use of technology in education, especially in learning Indonesian, can provide a more enjoyable, effective, and efficient learning experience for students.

4. CONCLUSION

Based on the results of data analysis in related research on the influence of creative problem solving learning models based on technology using the Quizizz application effectively on student learning outcomes in the Indonesian Language subject for class VIII at SMP Negeri 1 Cina, Bone Regency, it can be concluded that there is an influence of the use of creative problem solving learning media based on technology using the Quizizz application on student learning outcomes. This can be seen from the results of hypothesis testing using the Wilcoxon test (Hypothesis Test Analysis with the Wilcoxon Signed Rank Test) namely with a significance of 0.00 which means p value <0.05 so that the hypothesis is accepted.

Based on the research that has been done, the suggestion that can be given by the researcher is that there needs to be a creation of a fun learning atmosphere that can make it easier for students to understand the material. One example is using a creative problem solving learning model media based on technology using the Quizizz application or other learning media according to the learning material. In addition, other researchers need to pay attention to the condition of the facilities and infrastructure in schools in order to minimize difficulties.

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