

# ANALYSIS OF LEARNING RESULTS OF STUDENTS IN THE APPLICATION OF GAMIFICATION QUIZZ ON MATHEMATICS LESSONS

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## ABSTRACT

Gamification is becoming a trend where learning activities will be more fun by playing games, one of which is by using quizz. In this research, the researcher aims to determine the analysis of student learning outcomes in the application of media *quizzes* in learning mathematics, especially fractions. The type of research used in this research is qualitative research with a description method. The population used in this research was all 11 fourth grade students at Bethesda Elementary School. Data collection techniques are carried out through interviews and analyzing the data that has been obtained. Based on the research results obtained through utilization quizz in mathematics learning activities regarding fractions, it was found that the learning outcomes of fourth grade students increased, due to the use of media quizz. It can increase student motivation in learning and student interest so that it will influence student learning outcomes. Through the results of this research, it is hoped that every school will be able to utilize its quizz to improve student learning outcomes, especially in fraction materials.

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## 1. INTRODUCTION

Education has a very crucial role in the development of a country. According to Citriadin (2019), education is an effort carried out consciously by the family, community or government, through teaching, learning, guidance and training that takes place at school and outside school which aims to prepare students to be able to play a role in future.

In achieving these educational goals, especially in formal schools, educators have an important role in the abilities of students. According to Mawardi (2019), there are 4 factors that influence the world of education, namely teachers, students, facilities, and situations. Seeing the important role of educators in an educational institution, an institution wants to get results. Quality education must also have quality human resources (HR).

Quality human resources in the world of education can be realized if educators can develop the potential within themselves, such as pursuing higher education, diligently attending training, seminars, and many other ways to develop the quality of educators to be even superior. However, it needs to be emphasized and noted again that in the world of education the goal is to prepare students for the future, so in this regard, an educator must be able to master science and technology (science and technology).

Mastery of science and technology is not only to increase teacher understanding but also must be applied in learning activities, one of which is by using science and technology-based learning media. During Covid-

19, it was a big change in the world of education, from offline to online based education. Schools make various efforts so that learning activities can continue, even though they face various challenges and obstacles with the use of science and technology.

Covid-19 has finished, but that doesn't mean that educators have finished using science and technology-based learning media in learning activities. With normal learning activities, educators should be more creative in using developments in science and technology as learning media to support the process of learning activities in the classroom.

Gamification is one of the media that can be applied in learning activities, because with gamification learning activities will be more enjoyable. Gamification is applied in the form of games, and this is very suitable for the character of children who prefer to learn by playing.

One gamification media that is easy to implement and use in the world of education and can make it easier for educators to carry out evaluations is by *quizizz*. *Quizizz* has quite complete features and is suitable for use to support learning activities, *Quizizz* also has various benefits that are very useful for students and educators, including educators being able to find out material that students do not yet understand by measuring students' level of understanding by providing *posttest* and *pretest*, *quizizz* own various complete features from the form of multiple choice questions, check boxes, fill in the blanks, elections or surveys, and endings or essays, *quizizz* It is also easy to use, and increases the competitiveness of students to have a competitive spirit because it is deep *quizizz* there is a ranking system.

Based on previous research conducted by Salsabila (2020), there are several points that can be achieved if using media-based learning *quizizz* namely students can understand the questions given independently, students know more about the benefits of technology in learning, students are more creative, think critically, able to manage time well, and of course learning will be more enjoyable. Even though learning is carried out using the media *quizizz* this is nice but there are advantages and disadvantages of the application *quizizz*. Salsabila, Unik Hanifah., et al (2020), reveal the advantages and disadvantages of the application *quizizz*. Advantage *Quizizz* namely, (1) students will get a ranking, (2) if the student's answer is wrong, the correct answer will appear, (3) makes it easier for educators to create questions, (4) minimizes cheating because the questions given are randomly random, and (5) there are territory *questions*. Next are the shortcomings *quizizz* namely (1) the internet, (2) there will be problems if students are late in joining, (3) students find it easy to find answers, and (4) inappropriate time management.

Increasing student competitiveness through *quizizz* has a tremendous impact on student outcomes, because *quizizz* can motivate and interest students in learning. Application of use *quizizz* This is very suitable for use in all subjects, especially mathematics lessons. Mathematics is a difficult subject, this is proven by research conducted by Handayani and Mahrita (2020) from a population of 57 people, it was found that as many as 90% of students had difficulty learning mathematics, mathematics is a difficult subject due to various factors, one of which is boring learning. Boring learning occurs because the learning done in class is not fun, there are many things that can actually be done to make learning in class more enjoyable, among other things, by choosing fun learning methods and media. Based on the results of research conducted by Siregar (2017), out of 20 students, 85% of students said that learning mathematics through games was fun, and if learning was fun, students would be more enthusiastic about learning and would increase students' understanding of the materials. given.

This educational game is very suitable for applications in mathematics learning. In this odd semester, class IV of SD Bethesda Palembang is studying fractions with the learning objective "Explain and identify various forms of fractions and relationships between fractions", seeing the many benefits of *quizizz* So researchers are interested in applying learning in the classroom with the help of media *quizizz* so that learning objectives are achieved and of course students will be able to get results in accordance with the predetermined targets. Researchers also interviewed with fourth grade teachers at Bethesda Elementary School, Palembang, that educators also experienced problems in using learning media and only used minimal learning media, so that sometimes students got bored easily and learning objectives were not achieved.

This research refers to previous research conducted by Hisbulloh Huda. The type of research used is classroom action research which consists of two cycles where each cycle consists of two meetings. In the first cycle of the first meeting, the number of students who completed was 37.00%, increasing at the second meeting to 63.00%. In the second cycle at the first meeting, completeness was 87.00% and increased at the second meeting to 100%.

Based on the presentation above and the results of the interviews that have been conducted, the researcher would like to analyze the learning outcomes of students in the application of gamification *quizizz* in science lessons, especially material fraction. So researchers know the level of media effectiveness *quizizz* in mathematics learning in order to improve student learning outcomes even better.

**2. METHOD**

This research uses qualitative research with descriptive methods. According to Purba and Simanjuntak (2012:19), descriptive research is research that aims to provide an objective description of a certain fact. So this research must be carried out in accordance with the facts in the field. Data collection carried out in this research was carried out through interviews and looking at existing value data.

This research focuses on usage quizizz on fourth grade mathematics learning outcomes at Bethesda Elementary School, Palembang. The sample used was the entire fourth grade population totaling 11 people and Mrs. Trisnomurti, S. Pd as the resource person in the interview. The number of questions in the interview is 6 and the results of the interview will produce data in the form of value data, where the value data that has been collected will be processed by the researcher. In this research, researchers will also give questionnaires to students to add to the data obtained.

**3. RESULTS AND DISCUSSION**

Fun learning will make students more enthusiastic in participating in learning. Fun learning can be done using learning media. Learning media that is creative and supports learning activities will make it easier for education to achieve specific learning goals. Creative and fun learning will motivate students and increase students' interest in learning so that it will influence student learning outcomes.

In this study, researchers obtained data from educators regarding the average grades of students and students who completed or did not complete during learning activities. The following are the results of the average grades and incomplete completion of students when using the media quizizz. We can see that the average student score is above the KKM, namely 70. The researcher got raw data in the form of student scores, then the researcher carried out an analysis based on the student scores. From the analysis carried out by the researcher, the researcher obtained data on the average of fourth grade students with an average score of 80 in the first lesson and experienced an increase in the second lesson with a score of 89.

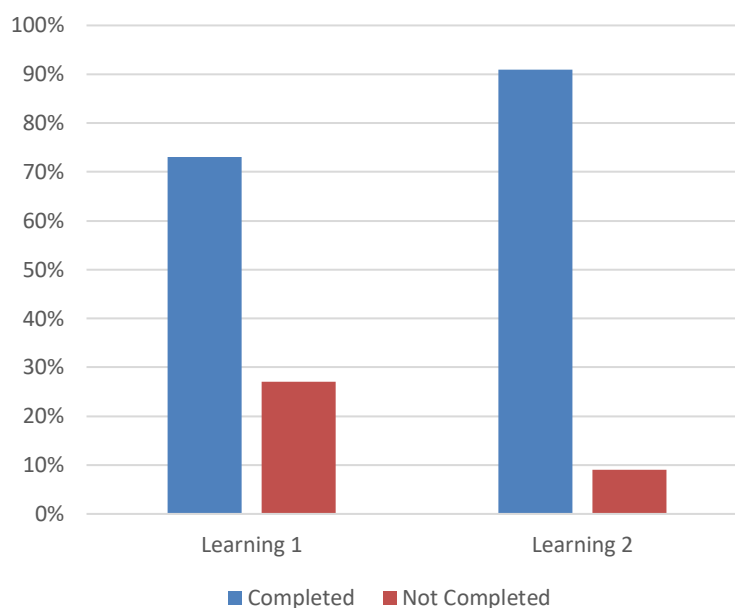


Figure 1. Completed Not Completed

Meanwhile, based on the second picture, the researchers also got data from the fourth grade homeroom teacher, then the data obtained was analyzed to search for and find data on students who were below the KKM and above the KKM. Based on the data analyzed by the researcher, data was obtained that in the first lesson there were 8 students who completed it with a completion percentage of 73%, while 3 students did not complete it with a percentage of 27%. In the second lesson, data was obtained which was then analyzed and data was obtained that 10 people with a percentage of 91% completed and 1 person with a percentage of 9% did not complete.

Apart from obtaining data from interviews, the researcher also obtained information related to the results of the questionnaire that had been distributed by the teacher. The following data from the questionnaire results were obtained:

Table 1. Questionnaire Results

	Amount Students	Criticism	No Criticism	Reason
Learning No Benefits <i>Quizizz</i>	11	-	11	1. Unpleasant 2. Boring
Learning with Utilize <i>Quizizz</i>	11	11	-	1. Fun and enjoyable 2. Can get ranking 3. There is music 4. There is an explanation of the answer 5. Can know the wrong answer quickly.

Based on the data analysis table carried out by the researcher based on the results of the interviews conducted and the results of the questionnaire distributed by the researcher, there was an increase in student learning outcomes in mathematics learning on fractions material for fourth grade SD Bethesda Palembang .

#### 4. CONCLUSION

Based on the results and discussion above regarding the analysis of student learning outcomes in the application of gamification *quizizz* in the fourth grade mathematics lesson on fractions, it can be concluded that using learning media *quizizz* can improve student learning outcomes. There are several factors that cause increased student learning outcomes, namely increased student motivation in learning and fun learning, which increases student interest in learning and will influence learning outcomes. And from the presentation and questionnaire that has been presented, there is an increase in learning outcomes in implementing gamification *quizizz* in fourth grade mathematics learning material fraction.

View the results of mathematical value data using fractions *quizizz* the student's grades are maximum, so the researcher suggests using the media *quizizz* in mathematics learning activities for the following material so that it can also produce maximum learning value. Researchers also hope that through this research, all educational institutions will be able to implement and utilize *quizizz* media in learning activities, so that learning activities will be more creative and innovative.

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