
**EFFORTS TO INCREASE STUDENTS LEARNING OUTCOMES ON
FRACTION MATERIALS WITH CONTEXTUAL TEACHING AND LEARNING
MODEL**

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ABSTRACT

Learning activities with this contextual teaching and learning model are learning that connects students with the real world. The purpose of this classroom action research is to find out the improvement of student learning outcomes in grade 2 SDN 1 Tebluru on fractions by using the contextual teaching and learning model. This research uses data collection techniques in the form of observation, interviews, tests, and documentation. After that the data collected will be analyzed using quantitative qualitative data analysis techniques. The results of this study indicate an increase in student learning outcomes in each cycle. In terms of the average learning outcomes from pre-cycle to cycle II, the scores were 65.7 to 84.3 and increased again to 88.6. In terms of the percentage of the number of students who completed, there was also an increase from 28.5% in the pre-cycle, to 71.4% in the first cycle, and 85.6% in the second cycle. Based on the results of the study, it can be concluded that the application of the contextual teaching and learning learning model in improving the learning outcomes of second grade students at SD N 1 Tebluru in learning mathematics with simple fractions.

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A. Introduction

Learning outcomes are the results of experiences gained by students in the cognitive, affective, and psychomotor domains (Fauhah & Rosy, 2021). Therefore, learning outcomes are an illustration of how successful a learning is (L, 2019). A learning is said to be successful if student learning outcomes meet the minimum completeness criteria. But in fact, in some field cases there are many problems, namely the low learning outcomes of students, especially in learning mathematics. Students have not been able to meet the minimum completeness criteria in learning mathematics.

Learning mathematics is closely related to students daily lives (Siagian, 2016). But in fact, there are still students who do not understand well and do not even like mathematics. This causes many cases of low mathematics learning outcomes. There are several factors that cause low student learning outcomes in learning mathematics. The main factor that most often occurs is the mismatch of the model or method used by the teacher with the needs and characteristics of students (Nabillah & Abadi, 2019). Other factors are teachers who do not use learning media that support the material, lack of student involvement in the learning process, environmental conditions around students that are less supportive, and poor study habits and methods (Nabillah & Abadi, 2019)

Problems regarding the low learning outcomes of students in learning mathematics are also experienced by grade 2 students at SDN 1 Tebluru Lamongan. Based on the results of observations and interviews, data obtained that grade 2 students of SDN 1 Tebluru Lamongan experienced a decrease in learning outcomes in fractional material. Since the discrepancy of the learning model or method is the main factor causing the low learning outcomes of mathematics, in this study the researchers tried to apply other learning models that were considered more in line with the nature of mathematics. The model used is the contextual teaching and learning model. Contextual teaching and learning (CTL) learning model is a learning model that can link concepts or subject matter with real life and motivate students to be able to connect the knowledge they learn with the real life around them (Kadir, 2013). Therefore, through the application of this contextual learning model, it is hoped that mathematical concepts that previously felt abstract become more concrete by connecting them to real-life situations, so as to increase students interest and understanding of mathematical concepts.

There are several previous studies that have proven that this CTL model can improve student learning outcomes. One of them is from (Hartini, 2017), which shows that by applying the Contextual Teaching and Learning (CTL) approach in teaching and learning activities for mathematics subjects, the material is in various forms of fractions in class III MI Al Maarif Sorong. There is also research from (Rahmawati, 2018), which proves that there is a positive influence on the application of the Contextual Teaching and Learning (CTL) learning model on student motivation and can improve science learning outcomes for grade II students at SDN Gambir Manis Wonogiri. Other research from (Chityadewi, 2019) also proves that using the CTL (Contextual Teaching and Learning) approach makes it easier for fourth graders at SDN Wedarijaksa 01 to understand problems in the material for arithmetic addition operations which are still abstract.

Because of the many previous studies that have proven the positive impact of the application of this CTL model in learning, in this study the researcher wants to apply the CTL model to improve mathematics learning outcomes for fractions. The purpose of this classroom action research is to examine the use of the contextual teaching and learning model, whether the model can improve the learning outcomes of grade 2 students at SDN 1 Tebluru Lamongan on fractions.

B. Method

This research uses classroom action research. Classroom action research is also known by the acronym CAR. Classroom action research is an action taken by a teacher that aims to improve the quality of learning (Azizah & Mirage, 2021). In this action research was conducted with the research model of Kurt Lewin. The stages of classroom action research according to Kurt Lewing are spiral-shaped which include fact finding, planning, taking action, evaluating and improving plans before taking action again in the next cycle (Jalaludin, 2021). The data collection technique in this action research uses interview, observation, test, and documentation techniques. Interview is extracting information by asking questions to the informant (Sejati & Muhroji, 2021). In this study, interviews were conducted with the homeroom teacher or class II teacher at SDN 1 Tebluru. Interviews were conducted so that researchers can find out the problems that exist in class II SDN 1 Tebluru. The next technique is observation, which is an empirical data collection technique based on facts in the field that can be captured by the five senses (Hasanah, 2016). This technique is used by observing the application of the

contextual teaching and learning learning model to the fractional material and observing students during the application of the contextual teaching and learning learning model to the fractional material. Furthermore, the test technique is a tool to measure ability. In this study, the test consisted of a pretest and a posttest which was carried out in writing in the form of an objective test. The last technique is documentation, namely checking documents or other data sources to obtain information (Nilamsari, 2014). In this study, documentation is used to take photos of learning activities using a contextual teaching and learning model. The collected data was then analyzed using qualitative quantitative data analysis techniques. Qualitative data analysis was used to analyze the results of interviews and observations in each cycle. While the quantitative data using descriptive statistical analysis. Quantitative data analysis was used to analyze the results of the pretest and posttest.

C. Result and Discussion

This research was carried out in two cycles. The first cycle was held on Tuesday, May 17, 2022, while the second cycle was held on Wednesday, May 18, 2022. To be able to see the comparison of learning outcomes before and after the action, the researchers conducted observations and tests. Observations were made during learning to assess changes in student behavior in each cycle, as a result of being given action. Another technique is a test, where in this study there were 2 tests, namely pretest and posttest. Pre test is given in the pre cycle. While the post test is given at the end of the learning activities in the implementation of the first and second cycles. The test is given to students in the form of pre-test and post-test in the form of multiple choice and consists of 10 questions regarding simple fractions. After seeing the comparison of the two cycles that have been carried out, it can be seen that there is an increase in student learning outcomes in simple fractions using the contextual teaching and learning model. There was also an increase in student activity in each cycle. The following are the results of student tests at the pre-cycle stage, cycle I, and cycle II:

Tabel 1. Students Learning Outcomes

Name of Students	Pre-cycle presets	Posttest Cycle I	Posttest Cycle II
Angel	70	70	70
Rayhan	50	90	80
Wildan	60	90	90
Aychilla	40	100	100
Azura	90	100	100
Felisya	90	100	100

Ainun	60	40	80
Average	65,7	84,3	88,6
Classical Completeness	28,5%	71,4%	85,6%

In the implementation of the pre-cycle the average student learning outcomes are still low, namely 65.7. In terms of the number of students who finished studying, of the 7 students who took the test, there were only 2 students who completed so that the percentage of completeness was only 28.5%. Based on the theory of mastery learning from (Trianto, 2012), a class is declared complete if the percentage of completeness is 85%. This shows that at the pre-cycle stage, students do not complete classically. Because the average learning outcomes are low and the percentage of completeness shows students are not classically complete, then action is needed in the next cycle to improve student learning outcomes.

Then in the implementation of the first cycle student learning outcomes began to increase. In the first cycle the average learning outcomes reached a score of 84.3. In terms of the number of students who finished studying, from 7 students who took the test, there were only 2 students who completed so that the percentage of classical completeness increased rapidly to 71.4%. However, if it is related to the theory of completeness from Trianto, then the score still shows that the class has been completed classically. There are also other data obtained, namely based on the results of observations in the implementation of cycle I, some students are still not used to actively participating in the learning process. Based on the results of observations of student activities, the score obtained is 80%. The score can still be increased again. Because students are still not classically complete based on the number of students completed, and there are still some shortcomings in the results of observations, the researchers repeated the action in cycle II. This is in accordance with what was conveyed (Mulyatiningsih, 2015) that repetition of actions in the next cycle can be done to improve the actions or results obtained in the previous cycle if the actions or results are not believed by the researcher to be successful and can still be improved.

In the implementation of the second cycle student learning outcomes are increasing. In the second cycle the average obtained was 88.6. The score has exceeded the minimum completeness criteria. In terms of the number of students who finished studying, of the 7 students who took the test, there were only 6 students who completed so that the percentage of classical completeness

increased to 85.7%. This score, when associated with the theory of completeness from Trianto, indicates that the class has been completed classically. In the second cycle, the number of active and responsive students increased. This is seen from the increase in the student activity observation score which shows a score of 100%. The score shows that all students are active and responsive in following the learning process. Students are more active and responsive because students begin to experience increased understanding of the material being taught. So it can be concluded that students achieve success indicators, so the research using the contextual teaching and learning model is considered successful.

The improvement of learning outcomes in each cycle cannot be separated from the skills of a teacher in teaching. This is in accordance with what was conveyed (Mansur, 2016), that teacher skills in teaching greatly affect student understanding and learning outcomes. Therefore, in this study, increased student learning outcomes are also influenced by the teacher's skills in presenting learning using the contextual teaching and learning model. This can be seen from the results of the percentage of observation sheets. In the first cycle, the observation of the teacher's activity got a score of 86.67%, this made student learning outcomes increase rapidly. The teacher's activity observation score increased again in the second cycle to 93%, making student learning outcomes also increase again and making the class classically complete.

Based on the discussion above, it can be concluded that with the contextual teaching learning model on simple fractions, student learning outcomes are increasing. In addition, the level of student activity is also increasing in each cycle. So with the application of the CTL model, it is able to make the classroom atmosphere active and fun. Learning with this contextual teaching and learning model is able to make students understand the material being taught. Students are easier to understand the material because the learning activities bring the real world or real life into the classroom and encourage students to gain knowledge and skills from students daily lives.

D. Conclusion

Learning activities with this contextual teaching and learning model are learning that connects students with the real world. The application of this contextual teaching and learning model makes students involved with the material being studied and relates it to everyday life. The results of this study indicate an

increase in student learning outcomes in each cycle. In the pre-cycle, the average learning outcome was 65.7 with a percentage of the number of students who completed 28.5%. The average learning outcomes and the percentage of the number of students completed both increased in the first cycle, by 84.3 and 71.4%, respectively. The increase occurred again in the second cycle with the average learning outcomes increased to 88.6 with the percentage of many students completing 85.6%. Based on the results of the study, it can be concluded that the application of the contextual teaching and learning learning model in learning activities in two cycles carried out for two meetings can improve the learning outcomes of second grade students of SD N 1 Tebluru in learning mathematics with simple fractions.

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