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Implementing the Contextual Learning Activity 'Shopping with Mom' to Improve Fifth Grade Students' Activeness in Learning Number Material at SDN Junrejo 01 Batu

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Abstract
This study aims to observe the improvement in students' active engagement through the implementation of the contextual learning activity innovation "Shopping with Mom" on whole number material for fifth-grade students at SDN Junrejo 01 Batu. This research is expected to provide new insights into more creative learning methods and assist educators in addressing the challenges of low student engagement in mathematics learning. The study employs a classroom action research (CAR) method, conducted in Class V A of SDN Junrejo 01 Batu during the 2024/2025 academic year, involving 20 students and focusing on mathematics material related to whole numbers up to 1,000,000. The final result of the action in Cycle 2 showed improvement, with an average evaluation score of 85.5, compared to 74.5 in Cycle 1. The percentage of learning mastery increased from 60% in Cycle 1 to 85% in Cycle 2. Based on these results, it can be concluded that the contextual learning activity innovation "Shopping with Mom" effectively increased students' active engagement in learning whole numbers up to 1,000,000. Therefore, the research is considered successful and was stopped at Cycle 2

Keywords:
Students' active involvement, contextual learning, CRT, TaRL

A. INTRODUCTION

Mathematics education in elementary school plays an important role in building the cognitive skills that students need to face various challenges in the future (Faizah, 2023). Mathematics, as one of the core subjects in elementary school, is often considered difficult by students. This is due to the abstract nature of mathematical concepts, which require logical and analytical understanding (Afifah & Fitrianawati, 2021). This has an impact on the low level of active involvement of students in the learning process, especially when learning is presented in an abstract manner and is not related to their real lives. The low level of interest and motivation of students to learn mathematics is one of the reasons for the lack of active involvement of students in learning. This poses a challenge for educators, because student activity is one of the factors for successful learning (Rismawati & Khairiati, 2020). The form of student activity in learning can be seen from student involvement in the learning process, such as discussions, listening to explanations, problem solving, actively working on assignments, writing reports, and being able to present the results of reports. Meanwhile, according to Nana Sudjana, the factors that influence learning activity are learning stimuli, attention and motivation, learned responses, reinforcement, use, and transfer (Nurhayati, 2020).

Initial observations at SDN Junrejo 01 Batu showed that fifth-grade students were passive during mathematics lessons, especially when the material was delivered conventionally without any connection to real life. It was evident that only a few students were actively involved in learning, while the others appeared to be lazy. Low motivation and active involvement of students pose a real challenge for teachers in creating meaningful learning. Learning motivation greatly

determines the success of learning, because students who are actively involved will find it easier to understand the material and retain information in the long term (Rahman, 2021). Therefore, a learning approach is needed that can stimulate students' enthusiasm for learning by taking into account the socio-cultural context and their level of readiness to learn, one of which is by implementing contextual learning activities.

Contextual learning is a holistic learning process that aims to help students understand the meaning of teaching materials and relate them to the context of their daily lives (personal, social, and cultural contexts), so that students have dynamic and flexible knowledge/skills to actively construct their own understanding (Suhartoyo dkk., 2020). This learning is closely related to Culturally Responsive Teaching (CRT) or learning that focuses on recognizing, respecting, and responding to the cultural diversity, backgrounds, and experiences of students in the learning process (Sari dkk., 2023).

Referring to research conducted by Sinaga & Silaban, the application of contextual learning is effective in stimulating learning activity and can improve student learning outcomes (Sinaga & Silaban, 2020). In this study, contextual learning is packaged in the form of a learning activity called "Shopping with Mom," which is a contextual learning scenario that links the concept of whole numbers with shopping, an activity that is very familiar to students. Through this context, students are encouraged to calculate prices, write them down correctly, and sort prices, all of which involve real number operations. By bringing this context into the classroom, it is hoped that students will be able to understand the concept of numbers in a more concrete and meaningful way.

This activity is designed by integrating two approaches, namely Culturally Responsive Teaching (CRT) and Teaching at the Right Level (TARL). CRT emphasizes the importance of incorporating cultural values, life experiences, and the local context of students into learning, so that they feel connected to the material being taught. Meanwhile, TARL allows teachers to group and guide students according to their level of understanding, rather than simply based on class or age. The combination of the two is expected to create an inclusive, adaptive learning environment that actively increases student engagement.

This study aims to examine the increase in active student engagement by using the innovative contextual learning activity "Shopping with Mom" in whole number material for fifth grade students at SDN Junrejo 01 Batu. This study is expected to provide new insights into more creative learning methods and assist educators in overcoming obstacles to student engagement in mathematics. Thus, the results of this study are expected to contribute positively to the development of more innovative and effective learning methods to be applied in various educational contexts.

B. METHODS

In this section, authors are required to describe the research method, design, instruments, participants (subjects), and research location. Clearly present the research procedure to ensure readability and clarity. You should also explain how data were collected and analyzed. Make sure that the research method employed is appropriate to the research problem and objectives. The Methods section should enable readers to replicate the study. Provide sufficient detail to allow the work to be reproduced. Methods that have been previously published should be cited, and only relevant modifications need to be described. Do not repeat well-established procedures. For chemical materials, please specify the brand and purity (for example: CaO (Merck, 99.5%)).

This study uses the classroom action research (CAR) method with reference to the Kemmis & McTaggart model, which includes four main stages, namely planning, action, observation, and reflection (Pratiwi Bernadetta dkk., 2021). This research was conducted in stages until the desired results were achieved. The subjects of this study were 20 fifth-grade students at SDN Junrejo 01 Batu in the 2024/2025 academic year, studying mathematics with a focus on numbers up to 1,000,000. This research was conducted in the even semester of the 2024/2025 academic year. Cycle 1 was conducted on April 15, 2025, and cycle 2 on May 7, 2025.

This study was conducted in two cycles, each of which consisted of four stages. Each stage can be described as follows:

1. Planning stage: In this stage, researchers prepare a learning design to be applied in the learning process, such as determining the materials, methods, media, and assessments to be used in the learning process in the form of teaching modules.
2. Action stage: In this stage, researchers implement the learning process in accordance with the learning design in the teaching module that has been created.
3. The observation stage is conducted simultaneously with the action stage, during which researchers re-observe what happens during the learning process and record their observations. Observations include identifying obstacles that arise and evaluating student learning outcomes.
4. Reflection stage: In this stage, researchers reflect on the learning that has been carried out based on the results of observations in the previous stage. If the desired results have not been achieved, the cycle is continued until the desired results are obtained.

The types of data collected in the implementation of this classroom action research (CAR) include student learning outcome data through learning evaluations, observation data, and documentation. To analyze this research data, quantitative descriptive analysis of the evaluation results and qualitative descriptive analysis of the observation results were used. Data collection in the learning activities was calculated until the value of the research success indicator was found, with a classical learning achievement rate of 85% (Gani dkk., 2022) from the students obtained a score above the minimum passing grade, which is >75.

C. RESULT & DISCUSSION

Cycle 1

Planning Stage

At this stage, the researcher prepared a learning design to be applied in the learning process. The planning carried out by the researcher was as follows:

1. Determine the learning topic. The topic chosen for this study is mathematics, specifically whole numbers up to 1,000,000.
2. Create teaching modules.
3. Determine the learning activity model and create student worksheets.
4. Create evaluation questions.

Action Stage

At this stage, the researcher implemented the learning design that had been created. The learning activities in cycle 1 were carried out in one meeting with a duration of 2 JP (2x35 minutes) and attended by 20 students. The learning activities were conducted using the Problem-Based Learning (PBL) method on the subject of numbers up to 1,000,000 with the appropriate stages in the teaching module. The following are the activities carried out by the researcher in cycle 1:

1. Provide material related to numbers up to 1,000,000 using PPT media.
2. Distribute worksheets to students. The activity in the worksheet is to answer question from the text provided
3. Students complete the worksheets that have been distributed.
4. Students present their work in front of the class.
5. Students and teachers summarize the lesson.

Learning activities in cycle 1 applied the CRT approach through LKPD content related to the circumstances in the Junrejo District. These activities enabled students to become familiar with and understand the geographical conditions of the Junrejo District, including information on the area of each village in the district

In addition to CRT, this learning also applies the TaRL approach by grouping students based on their cognitive abilities, which have been identified through diagnostic assessments conducted prior to learning. The learning activity ended with an evaluation, which was intended to determine the improvement in the learning outcomes of students in class V A of SDN Junrejo 01 Batu, based on the assumption that if students are actively involved in learning, it will increase

their motivation to learn, which will in turn improve their learning outcomes (Rahman, 2021).

Observation Stage

From the previous stage, observations showed that students appeared to be less enthusiastic about participating in learning. Only a few students were actively involved in learning. The results of the evaluation of students in class V A in cycle 1 are as follows.

Table 1. Cycle 1 Evaluation Results

Number of Scores	**1490**
Average Score	**74.5**
Minimum Score	**30**
Maximum Score	**100**
Number of Students Who Passed/Total Number of Students	**12/20**
Pass Rate	**60%**

Source: Researcher observation, 2025

Based on the table, it can be seen that only 12 students who had completed the flat shape mathematics learning material obtained a score above the minimum passing grade, which is >75, while the rest still obtained scores below the minimum passing grade.

Reflection Stage

According to the learning success indicators, learning is considered successful if it achieves a minimum completion rate of 85% of the total number of students. In cycle 1, a completion rate of 60% was achieved, which means that learning cannot yet be considered successful.

The cause of this is due to the lack of interest in learning activities carried out in the classroom. Monotonous learning activities tend to make students less enthusiastic about participating in learning. In addition, student involvement in learning is also very minimal, with only a few students actively participating in learning. As a result, the scores obtained from the evaluation are also low. Therefore, a follow-up cycle is needed to improve the evaluation results by replacing learning activities with more active ones that involve students.

Cycle 2

Planning Stage

At this stage, the researcher prepared a learning design to be applied in the learning process, taking into account the mistakes made in cycle 1. The researcher's main focus was to change the learning activities to be more engaging for the students in the learning process. The enthusiasm of the students was very important in order to achieve better results than before. The learning activity carried out in cycle 2 is “Shopping with Mom,” a contextual learning scenario that links the concept of whole numbers with shopping activities, which are very familiar to students in their daily lives. Through this context, students are invited to calculate prices, the number of items, and the amount of money needed, all of which involve real-life whole number operations.

The researchers also designed activities that integrated with the culture surrounding the students, namely by creating narratives about snacks typical of Malang and Batu. This concept

aimed to enable students to become more familiar with several snacks typical of their region. Each group received worksheets featuring different typical snacks. In addition to the CRT approach, researchers also integrated the TaRL approach into learning activities. The TaRL approach was integrated by forming groups according to the abilities of the students, namely proficient, adequate, and needing guidance groups. Each group will receive worksheets with different levels of difficulty but still with the same learning objectives.

Action Stage

The learning activities in cycle 2 refer to the teaching modules that were created in the previous stage. The learning activities that were improvised from cycle 1 are as follows:

1. Students receive worksheets and play money.
2. Each group reads the text provided in Learning Activity 1. The texts provided are "Savory and Crispy Tempeh Chips, an Icon of Malang"; "Bakpao Telo: The Beautiful Purple Pastry of Malang"; and "Malang Strudel: The Perfect Combination of Pastry and Apples from Batu." The texts contain information about the ingredients that the mother will purchase to make these snacks.

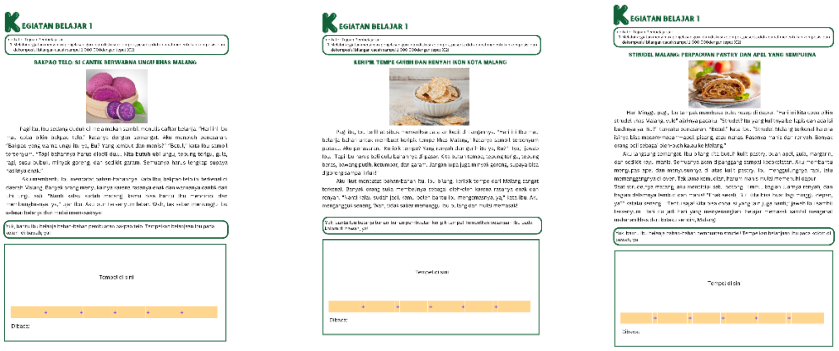

Figure 2. Worksheet Cycle 2

3. The students then "shop with their mother" by selecting ingredients at the "market" that has been provided. The sheet contains several food items and prices, which they can then select according to the needs listed in the text.

Figure 3. Market

4. Students then attach the materials and complete the task according to the instructions in the worksheets.

Observation Stage

The results of the evaluation of students in class V A in cycle 2 are as follows.

Table 2. Cycle 2 Evaluation Results

Number of Scores	1710

Average Score	85.5
Minimum Score	10
Maximum Score	100
Number of Students Who Passed/Total Number of Students	17/20
Pass Rate	85%

Source: Researcher observation, 2025

Based on the table, it was found that there were 17 students who scored >75 in the mastery category. Meanwhile, 3 others still scored below the minimum passing grade. At this stage, the researcher observed that the students appeared to be more active and enthusiastic in learning. They worked together enthusiastically to determine the necessary food ingredients so that no mistakes would be made. During the question and answer session, almost all students raised their hands to get a turn to answer questions.

Reflection Stage

The completion rate in cycle 2 was 85%, while the minimum completion rate indicator is 85% for learning to be considered successful. This means that the learning conducted in cycle 2 has exceeded the minimum threshold for success. The application of the "Shopping with Mom" learning activity innovation in mathematics lessons on whole numbers has been proven to increase student engagement, as seen from cycle 1, which was only 60%, to 85% in cycle 2. With the achievement of the success indicator, this classroom action research was stopped in cycle 2 and did not require a follow-up cycle.

D. CONCLUSION

Based on this research, the results of the learning evaluation in cycle 1 had an average of 74.5 and in cycle 2 reached an average of 85.5, while the percentage of mastery in cycle 1 was 60% and increased in cycle 2 to 85%. From these results, it can be concluded that the application of the contextual learning innovation "Shopping with Mom" can increase the active involvement of students in learning mathematics, specifically whole numbers, for fifth-grade students at SDN Junrejo 01 Batu. This research was declared successful and terminated in cycle 2.

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