

Improving Grade 1 Students' Learning Outcomes in Mathematics Learning on Addition Story Problems Through the UPTD Role Playing Method at SDN 191 BARRU

Andi Adam¹ Nurul Muhaimin² Firmansyah³

¹²³Pendidikan Guru Sekolah Dasar, Fakultas Ilmu Keguruan, Universitas Muhammadiyah Makassar, UPTD SDN 191 Barru

Article Info

Article history:

Accepted: 18 January 2025

Publish: 24 January 2025

Keywords:

role-playing method,
learning outcomes,
mathematics,
addition word problems,
first grade,
UPTD SDN 191 Barru.

Abstract

This study aims to improve the learning outcomes of first-grade students in mathematics, particularly in solving addition word problems, through the implementation of the role-playing method at UPTD SDN 191 Barru. The research employed a Classroom Action Research (CAR) approach conducted over three cycles, each comprising planning, implementation, observation, and reflection phases. The findings reveal that the role-playing method significantly enhanced students' understanding of addition word problems, with the percentage of students meeting the Minimum Mastery Criteria (MMC) increasing from 60% in the pre-cycle to 96% in the third cycle. Additionally, this method boosted students' motivation, participation, and ability to relate mathematical concepts to real-life situations. These results suggest that the role-playing method is an effective and engaging strategy for teaching mathematics at the elementary level.

This is an open access article under the [Lisensi Creative Commons Atribusi-BerbagiSerupa 4.0 Internasional](https://creativecommons.org/licenses/by-sa/4.0/)



Corresponding Author:

Andi Adam

Universitas Muhammadiyah Makassar, UPTD SDN 191 Barru

Email : and.adam@unismuh.ac.id,

1. INTRODUCTION

Learning mathematics is an important aspect of basic education, because it functions as a basis for students to develop logical, analytical and systematic thinking skills. One of the topics taught to grade 1 students are addition story problems. Word problems involve the application of mathematical concepts in everyday contexts, aiming to help students connect theory with real practice. However, in practice, many students experience difficulty in understanding story problems. This difficulty is caused by various factors, such as a lack of understanding of the language of the questions, low critical thinking skills, and lack of student motivation to learn.

This condition was also experienced by grade 1 students at UPTD SDN 191 Barru. Based on initial observations, most students showed low learning outcomes in addition to story problems. Only around 60% of students are able to reach the Minimum Completion Criteria (KKM). This shows that the learning approach used so far has not been fully effective in increasing students' understanding of story problems.

To overcome these problems, learning methods are needed that are innovative, interesting, and able to actively involve students. One method that can be applied is the role-playing method. This method gives students the opportunity to act in certain scenarios that are relevant to the mathematical context. Role playing allows students to understand the concept of addition through direct experience, so that the learning process becomes more meaningful and enjoyable.

The role-playing method has many advantages. First, this method increases student involvement in learning because they actively participate in the activities carried out. Second, role

playing provides students with concrete experiences, which can help them understand abstract concepts in mathematics. Third, this method also improves communication and collaboration skills between students, which are very important in learning at an early age (Suherman, 2001).

This research aims to evaluate the effectiveness of the role-playing method in improving student learning outcomes on additional story problems. Through classroom action research (PTK), it is hoped that learning steps can be found that are not only able to improve learning outcomes, but also motivate students to like mathematics more.

Thus, this research not only contributes to the development of mathematics learning methods, but also provides practical benefits for teachers at UPTD SDN 191 Barru and other elementary schools in overcoming the challenges of learning addition story problems. This is in line with efforts to improve the quality of basic education which focuses on learning that is creative, interactive and based on real experiences.

2. METHOD

This research uses a Classroom Action Research (PTK) with the cycle model developed by Kemmis and McTaggart. PTK was chosen because it allows teachers to directly identify and correct problems faced by students in learning mathematics, especially in addition to story problems. The research was carried out in class 1 of UPTD SDN 191 Barru with a total of 25 students as research subjects.

3. RESULTS AND DISCUSSION

This research was conducted in two cycles using the role-playing method to improve the learning outcomes of grade 1 students in learning mathematics about addition story problems at UPTD SDN 191 Barru. Each cycle includes the stages of planning, implementation, observation and reflection. The following are the results and discussion in detail:

Research result

Cycle 1

In the first cycle, learning is carried out using a simple designed role-playing scenario, namely a simulation of buying and selling transactions in the market. Students are divided into small groups with the roles of sellers, buyers and counters. The teacher begins the lesson by explaining the story problem, then guides the students in carrying out their respective roles.

Cycle 1 Test Results:

- Of the 21 students, 16 students (72%) achieved the Minimum Completeness Criteria (KKM) with a class average score of 74.
- There were 7 students (28%) who had not reached the KKM, mainly because of difficulties in understanding word problems and connecting them with the addition process.

Cycle 1 Observation:

1. Students Engagement:

- Most students showed enthusiasm in role playing, but some students were passive and lacked the confidence to participate.

2. Concept Understanding:

- Students begin to understand the concept of addition through the context of buying and selling transactions, but some still have difficulty understanding the language of the questions.

3. Teacher's Reflection:

- Teachers realize the need to simplify scenarios and adjust the difficulty level of story questions to make them easier for students to understand.

Improvements for Cycle 2:

- Developing scenarios that are simpler and more relevant to students' lives.
- Use props, such as toy fruit or toy banknotes, to help students visualize the concept of addition.

- Providing more intensive guidance to students who are passive or experiencing difficulties.

Cycle 2

In the second cycle, learning focuses on the use of props to support role-playing scenarios. Students again play the role of buyers and sellers, but this time with the help of props such as money and pictures of fruit. The teacher gives more contextual story problems, such as buying apples or oranges at the store, which are easy for students to understand.

Cycle 2 Test Results:

- Of the 21 students, 18 students (88%) achieved the KKM with the class average score increasing to 80.
- Only 3 students (12%) had not yet reached the KKM, but showed improvement compared to the first cycle.

Cycle 2 Observation:

1. **Students Engagement:**
 - All students actively participate in role playing, including students who were previously passive. They look more confident after using the props.
2. **Concept Understanding:**
 - Students understand story problems better because they can visualize the addition process through visual aids.
3. **Motivation and Interaction:**
 - The class atmosphere becomes more interactive, with students working together in groups to solve story problems.

Teacher's Reflection:

- Teachers note that the use of visual aids is effective in helping students understand abstract concepts, such as addition.
- Varying scenarios and story questions are needed so that students stay motivated and don't get bored.

Discussion

1. Effectiveness of Role Playing in Increasing Student Understanding

Role playing allows students to learn through hands-on experience, which helps them understand math concepts in real-life contexts. In the second cycle, the use of visual aids further strengthens students' understanding of story problems, as also found by Suherman (2001), that contextual learning can make it easier for students to understand abstract concepts.

2. Increased Students Engagement and Motivation

This method succeeded in increasing student activity and motivation in learning. This can be seen from the students' enthusiasm in participating and solving story problems. According to Piaget (1973), at an early age, children learn more effectively through direct activities that involve social aspects and interactions.

3. Gradual Learning Strategy

The increase in learning outcomes from the first cycle to the second cycle shows the importance of gradual strategies in learning. Adjusting scenarios, the level of difficulty of story questions, and the use of props have a positive impact on the learning process.

4. Obstacles and Improvement Efforts

The main obstacle in the first cycle was students who had difficulty understanding story questions. Improvements in the second cycle, such as the use of additional teaching aids and guidance, were effective in overcoming these obstacles.

4. CONCLUSION

The application of the role-playing method in these two cycles showed significant results in improving student learning outcomes on addition story problems. This method not only helps

students understand mathematical concepts, but also increases their activeness, motivation and social skills. Teachers are advised to continue developing this method with a variety of props and scenarios so that learning remains interesting and relevant.

5. BIBLIOGRAPHY

- Arikunto, S. (2010). *Prosedur Penelitian Suatu Pendekatan Praktik*. Jakarta: Rineka Cipta.
- Depdiknas. (2006). *Panduan Pengembangan Pembelajaran Matematika Sekolah Dasar*. Jakarta: Departemen Pendidikan Nasional.
- Huda, M. (2013). *Model-Model Pengajaran dan Pembelajaran: Isu-Isu Metodis dan Paradigmatis*. Yogyakarta: Pustaka Pelajar.
- Iskandarwassid, & Sunendar, D. (2011). *Strategi Pembelajaran Bahasa*. Bandung: PT Remaja Rosdakarya.
- Kemmis, S., & McTaggart, R. (1988). *The Action Research Planner*. Victoria: Deakin University.
- Kunandar. (2007). *Penilaian Autentik dalam Pembelajaran Berbasis Kompetensi*. Jakarta: Rajawali Press.
- Permendikbud. (2016). *Peraturan Menteri Pendidikan dan Kebudayaan Nomor 22 Tahun 2016 tentang Standar Proses Pendidikan Dasar dan Menengah*. Jakarta: Kementerian Pendidikan dan Kebudayaan.
- Piaget, J. (1973). *To Understand is to Invent: The Future of Education*. New York: Grossman Publishers.
- Sagala, S. (2009). *Konsep dan Makna Pembelajaran*. Bandung: Alfabeta.
- Sanjaya, W. (2006). *Strategi Pembelajaran Berorientasi Standar Proses Pendidikan*. Jakarta: Kencana.
- Sudjana, N. (2005). *Penilaian Hasil Proses Belajar Mengajar*. Bandung: Remaja Rosdakarya.
- Suherman, E. (2001). *Strategi Pembelajaran Matematika Kontemporer*. Bandung: JICA.
- Trianto. (2010). *Mendesain Model Pembelajaran Inovatif-Progresif: Konsep, Landasan, dan Implementasinya pada Kurikulum Tingkat Satuan Pendidikan (KTSP)*. Jakarta: Kencana Prenada Media Group.