



Application of the Quantum Teaching Learning Model to Improve Learning Outcomes of Elementary School Students

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Abstract

This study aims to improve the learning outcomes of fourth-grade students in social studies subjects in elementary schools. The type of research used was Classroom Action Research (PTK) which involved 39 students and was carried out in two cycles with the stages of implementation, action, observation, and reflection. The results showed that the dingying the Quantum Teaching Learning model could improve social studies learning outcomes, as evidenced by student activity whicentage of 60% in cycle I and increased to 100% in cycle II. In addition, student learning outcomes in cycle I reached a percentage of 51% with an average of 72 and increased to 87% in cycle II with an average of 86. The increase in test results indicated the achievement of indicators of success.

Keywords: quantum teaching; learning outcomes; elementary school students

Abstrak

Penelitian ini bertujuan untuk meningkatkan hasil belajar siswa kelas IV pada mata pelajaran IPS di sekolah dasar. Jenis penelitian yang digunakan adalah Penelitian Tindakan Kelas (PTK) yang melibatkan 39 siswa dan dilaksanakan dalam dua siklus dengan tahapan pelaksanaan, tindakan, observasi, dan refleksi. Hasil penelitian menunjukkan bahwa penerapan model Pembelajaran Quantum Teaching dapat meningkatkan hasil belajar IPS, yang dibuktikan dengan aktivitas siswa yang mencapai persentase 60% pada siklus I dan meningkat menjadi 100% pada siklus II. Selain itu, hasil belajar siswa pada siklus I mencapai persentase 51% dengan rata-rata 72 dan meningkat menjadi 87% pada siklus II dengan rata-rata 86. Peningkatan hasil tes tersebut menunjukkan tercapainya indikator keberhasilan.

Kata kunci: quantum teaching; hasil belajar; siswa sekolah dasar

Introduction

In an effort to improve student learning outcomes in schools, many steps have been taken including improving the Curriculum and Learning Focus. The learning paradigm that was originally teacher-centered has now changed to student-centered learning to encourage students to be actively involved in the learning process so that they can build better knowledge, attitudes and behavior (Muganga & Ssenkusu, 2019; Nurlaelah et al., 2021). In this way, teachers provide opportunities and facilities for students to build their own knowledge so that students can understand concepts more deeply and ultimately improve the quality of students as a whole.

Fun learning is essential in elementary school children's education. Elementary school-age children need positive and fun learning experiences to form a solid foundation in their learning process (Wati & Yuniawatika, 2020). In addition to increasing learning motivation, fun learning can foster children's interest in learning, increase social interaction, and improve creative skills. It is commonly observed that children display greater interest towards enjoyable and exciting activities. Educators can facilitate the development of children's interest in different educational domains by employing interactive and entertaining teaching methods (Raniyah & Syamsudin, 2019; Thor & Karlsudd, 2020). In addition, fun learning can also help increase children's social interaction and improve their creative skills. In informal and fun situations, children can better collaborate and discuss learning topics, thus enriching their learning experience. Therefore, fun learning is an essential aspect of elementary school children's education and should be given sufficient attention by teachers and parents to help children achieve their learning potential.

However, the reality in schools shows that the learning process has not yet achieved optimal results. Students are still not actively involved in learning and only act as recipients of information, so that students' understanding of learning material is still limited. This can be seen from the low social studies learning outcomes of students, which only reached 46% (18 students) of the total 39 students who completed and 54% (21 students) who did not complete with the Maximum Completeness Criteria of 75. These learning outcomes were caused by a lack of student activity, lack of student attention to learning, lack of student cooperation in learning, and lack of enthusiasm and excitement of students when learning.

One learning model that can improve student learning outcomes is Quantum Teaching. Quantum Teaching is a learning model that integrates left and proper brain functions to create fun and meaningful learning for students (Nahar et al., 2022; Oktasari et al., 2019; Sumasningtyas et al., 2020). Previous studies have shown that applying the Quantum Teaching learning model can improve student learning outcomes in various subjects, including social studies in elementary schools. The increase in student learning outcomes achieved through applying the Quantum Teaching learning model is supported by factors such as a good emotional relationship between teachers and students, students' activeness in learning, and the use of various exciting learning methods. Therefore, using the Quantum Teaching learning model is essential to improve student learning outcomes in social studies subjects in elementary schools. This can improve the competence and quality of education in Indonesia so students can compete in an increasingly complex and competitive global world.

Method

This study used classroom action research conducted in Cycle I and Cycle II. This study used the Kemmis and Mc Models. Taggart with its stages consisting of Planning, Implementation, observation and reflection. This research was conducted at the Inpres Bontomanai elementary school involving 39 grade IV students. The focus of this research is divided into two, namely, the learning process and learning outcomes. Researchers used student activity observation sheets and teacher activity sheets in the learning process. The observation sheet is a checklist sheet regarding learning activities carried out by students and teachers. Through these observations, researchers can discover the weaknesses or deficiencies experienced during the learning process. Meanwhile, to find out the learning outcomes, students will be given a test sheet at the end of the cycle. The test used in this study consisted of 10 multiple-choice tests and five essay tests. This test was used to determine student social studies learning outcomes.

Results and Discussion

Based on the learning outcomes, it appears that before using the Quantum Teaching learning model, pre-cycle students only reached 46% with fewer grades, and 54% did not achieve learning mastery. During the learning process in cycle I used the Quantum Teaching model, observations of student activity showed that there were still

many deficiencies, such as lateness to class, lack of participation in discussions, and lack of ability to work together in groups. This causes only 60% of students to reach the good category in observing student activities. In addition, observations of teacher activities also showed several deficiencies, such as a lack of direction in groups, lack of support for the presentation of group work results, and lack of awarding to students. Although observations of teacher activity reached 70% in the excellent category, student learning outcomes in cycle 1 showed that 51% of students achieved less, and 49% had not achieved learning mastery. Therefore, the percentage of learning completeness is still below 80%, which indicates that efforts to improve student learning outcomes using the Quantum Teaching learning model have not succeeded in achieving indicators of success.

The results of observations of student activities in cycle II during learning with the Quantum Teaching model showed an increase. Students have to enter class on time, dare to answer questions from the teacher, discuss with group mates, and can work together in groups. The percentage of observations of student activities in cycle II reached 100% with an excellent category, so efforts to improve learning outcomes can be successful in cycle II. Teacher activities in cycle II also experienced an increase, where the teacher was able to properly guide students in groups, asking students to present the results of group work and giving awards to students. The percentage of observations of teacher activities in cycle II reached 100% with an excellent category. Therefore, efforts to improve learning outcomes in cycle II can be carried out properly.

Data on student learning outcomes in cycle I showed that 20 out of 39 students, or 51% received a poor rating. In compare, 19 students, or 49%, did not achieve learning mastery. This indicates that the percentage of student learning completeness is still below the target of 80% so the learning outcomes of fourth-grade elementary school students in social studies subjects using the Quantum Teaching learning model have not yet reached indicators of success. However, in cycle II, out of 39 students, 34 students, or 87%, had achieved learning mastery with a good predicate. While five students, or 13% of students, still have not achieved mastery of learning. Therefore, the percentage of student learning completeness has exceeded the target of 80%, so the learning outcomes of fourth-grade students at SD Inpres Bontomanai Makassar on social studies

subjects using the Quantum Teaching learning model have increased from the results of the cycle I. The following is a diagram of student activity and teacher activity:

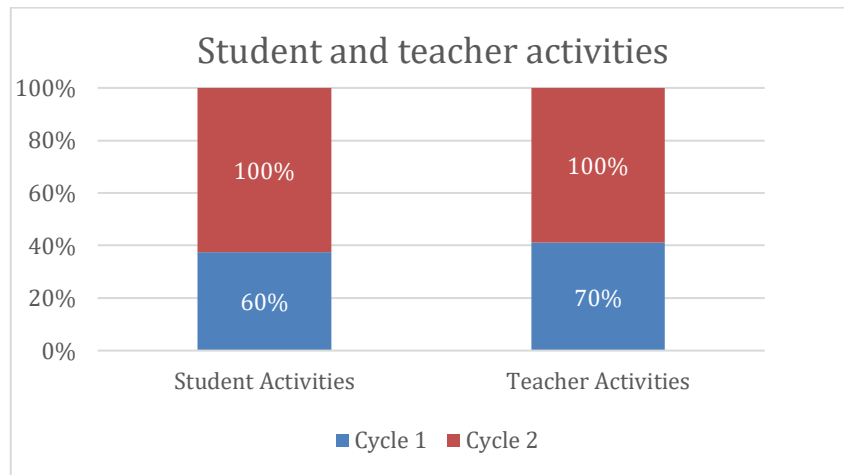


Figure 1 Student and teacher activities

Based on the diagram, it is known that student activity in cycle I was 60% and increased in cycle II to 100% in the excellent category. Furthermore, teacher activity in cycle I was 70% and increased in cycle II to 100% in the excellent category.

Reflecting on cycle I, it can be seen that by applying the Quantum Teaching learning model, students can be motivated to take social studies lessons in class. This is evident from the observations of researchers and observers, such as seeing students not sleepy, and wanting to take notes without being told also to attend lessons in an orderly manner. Students show pleasure in participating in learning by using the Quantum Teaching learning model, and students are enthusiastic about doing assignments from the teacher. This can be seen from the enthusiasm of students when given assignments. However, some deficiencies in the first cycle must be corrected by the teacher in carrying out the second cycle. The deficiencies found in the first cycle of research are in the Quantum Teaching learning process the teacher requires careful preparation before starting the learning process, such as preparing directions for students who do not arrive on time, directions so that students are not afraid when the teacher asks and gives gifts or reward so that students are more enthusiastic in learning. In addition, teachers are also less able to control students properly, individually or in groups, this is what makes students less cooperative in groups and also unable to exchange ideas with their group mates. The deficiencies in cycle 1 agree with (Fitri et al., 2021; Siahaan et al., 2021) which

states that Quantum Teaching's shortcomings include requiring careful preparation for teachers and a supportive environment, requiring adequate facilities and being unable to control students.

Reflection on cycle II of the deficient in cycle I has shown satisfactory results in cycle II, as evidenced by the observations of student activities and teacher activity. Based on the reflections of cycle II, this agrees with Deporter's statement (Fitri et al., 2021) which states that the advantages of Quantum Teaching are growing and generating student enthusiasm, cooperation, offering brilliant ideas and processes in forms that are easy for students to understand, creating behavior and attitudes of trust yourself, learning feels good, psychological calm and freedom of expression. The following is a comparison of the increase in learning outcomes from the pre-cycle, cycle I and cycle II:

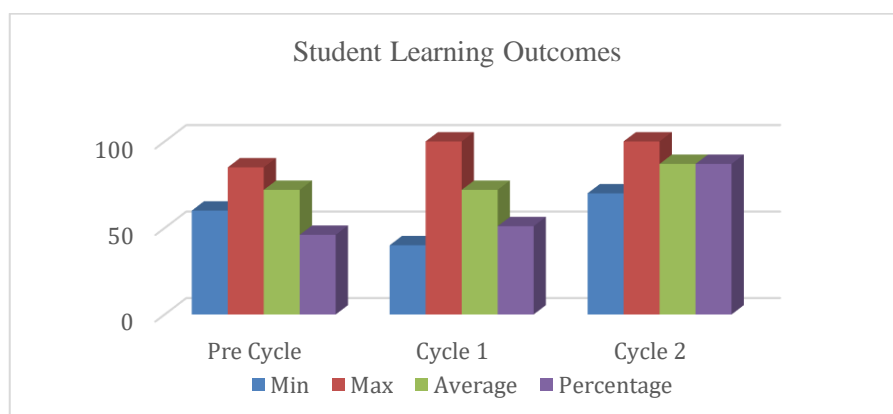


Figure 2 Improvement of Social Studies Student Learning Outcomes

Thus, the application of the Quantum Teaching learning model can improve student learning outcomes in social studies class IV SD Negeri Bontomanai Makassar. This can be seen from the increase in learning outcomes from the pre-cycle with a percentage of 46%, an increase in cycle I obtained a percentage of learning outcomes of 51% with an average of 72 and in cycle II it increased to obtain a percentage of learning outcomes of 87% with an average of 86. So an increase in results learning from cycle I to cycle II that is as much as 36%.

This is also in line with research conducted by (Fayanto et al., 2019) titled "Application of the Quantum Teaching Learning Model to Improve Science Learning Outcomes" and cycle II of 100%. The average value in cycle 1 reached 75.41 and rose to 84.16 in cycle II. This study concludes that applying the Quantum improvesg model can

optimally improve science learning outcomes so that students are more better understbeter understander understanding of the material. The TANDUR (Grow, Experience, Name, Demonstrate, Repeat, and Celebrate) aspects in Quantum Teaching can provide learning experiences, discover concepts, and make students more skilled in choosing the steps to solve each science problem. Furthermore, research was conducted by (Nasution et al., 2019; Sulastri, 2022)with the title "Application of the Quantum Teaching Model to Improve Mathematics Learning Outcomes." The results of this research were data on student learning outcomes collected through a written test at the end of each cycle. The results of this study indicate that the average value of the first cycle test results is 62.78, and the second cycle average value is 75.00. The conclusion of this study is that the application of the Quantum Teaching learning model can improve students' mathematics learning outcomes.

Conclusion

The implementation of the Quantum Teaching learning model is effective in increasing student achievement in social studies subjects in class IV SD Negeri Bontomanai Makassar. It can be seen that the activity of students and teachers increased significantly in cycle II compared to cycle I. In addition, there was a significant increase in student learning outcomes from pre-cycle to cycle I, with an average score of 72 and in the good category. Then, in cycle II, there was an even more significant increase, with an average score of 86 and a suitable category, so the target indicator of success was at least 80% of students obtaining the KKM score. Therefore, it can be concluded that the implementation of the Quantum Teaching learning model is very effective in improving student learning outcomes in social studies subjects in class IV SD Negeri Bontomanai Makassar.

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