THE USE OF JIGSAW TYPE COOPERATIVE LEARNING MODEL TO IMPROVE CLASS IV PRIMARY SCHOOL COOPERATION SKILLS

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Abstract

The background of this research is to improve the collaboration skills of elementary school students, using the Jigsaw type cooperative model. This research used a mix method, with a sample of class IV students and a population of 30, consisting of 16 female students and 14 male students. The results of research data processing show that the average pretest score is 42.19, while the average posttest score is 86.28. Apart from that, the pretest normality test value is 0.066 while the posttest is 0.427, so significantly both values have met the normality test criteria, namely 0.05, meaning this research is acceptable. Furthermore, qualitatively, this research can be said to be successful, noting that there are difficulties or obstacles faced by teachers during learning, namely when conditioning students in conditions of moving from home groups and expert groups, because the atmosphere in the classroom is not conducive. So the conclusion of this research is that there has been an improvement with the implementation of the Jigsaw cooperative learning model for elementary school students.

Keywords: Cooperation skills, Jigsaw cooperative model, Elementary school.

Abstrak

Latar belakang penelitian ini adalah untuk meningkatkan keterampilan bekerja sama siswa Sekolah Dasar, dengan mengggunakan model kooperatif tipe Jigsaw. Penelitian ini menggunakan metode mix methode, dengan sample siswa kelas IV dan populasi berjumlah 30, yang terdiri dari 16 siswa perempuan dan 14 siswa laki-laki. Hasil pengolahan data penelitian menunjukkan perolehan rata-rata nilai pretest yaitu 42,19 sedangkan perolehan rata-rata nilai postest yaitu 86,28. Selain itu untuk nilai uji normalitas pretest yaitu 0,066 sedangkan postest yaitu 0,427 maka secara signifikansi kedua nilai tersebut telah memenuhi kriteria uji normalitas yaitu 0,05 artinya penelitian ini dapat diterima. Selajutnya secara kualitatif penelitian ini dikatakan berhasil dengan catatan terdapat kesulitan atau kendala yang dihadapi oleh guru ketika pembelajaran yaitu pada saat mengkondisikan siswa dalam kondisi perpindahan kelompok asal dan kelompok ahli, karena suasana dikelas menjadi tidak kondusif. Maka kesimpulan dari penelitian ini adalah terdapat peningkatan dengan diterapkannya model pembelajaran kooperatif Jigsaw pada siswa sekolah dasar.

Kata Kunci: Keterampilan bekerja sama, Model kooperatif Jigsaw, Sekolah dasar.

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INTRODUCTION

Collaborative activities are a working relationship carried out by two or more students which is established because of the need to achieve the same learning goals, interact with each other, exchange information and ideas and respect each other. Apart from that, it can also help develop social skills and attitudes. improve each student's understanding during the discussion process regarding learning that the student does not understand (Kuncono, Hermawan, & Riyadi, p. 2019). Goals, duties, responsibilities, interpersonal relationships, mutual trust and support, relationship-building, and external factors are some of the components of cooperation that students can engage in. These are the fundamental elements that serve as the foundation for developing student cooperation. (Budiarti, Maruti, & Wati, 2020).

The importance of this collaboration is because students are able and brave to convey their opinions without any hesitation, and with collaboration, students are expected to have the ability to interact well. (Wati, Maruti, & Budiarti, 2020). So it can be concluded that the problem that occurs is the students' low collaboration skills and one alternative to solve this problem is to apply a learning model throughout the process of learning. So one learning model that is suitable and can be used by teachers to improve students' collaboration skills is through the cooperative learning model. Teams or small groups of four to six people with a variety of academic nationalities, races, genders, or backgrounds are used in the cooperative learning approach. (Sarumaha, et al., 2023).

The cooperative learning model to Jigsaw allows pupils to participate assiduously and creatively during the educational process. This model allows students to learn extensive material by working together in groups with others (Saputra, 2020). Each group will receive a topic of discussion and each group will look for information about the content of the sub-topic being studied, meaning that the groups will be redistributed so that students have the same sub-topic from different groups and form a new group called the expert group (Ruspandi , 2021). Apart from that, the Jigsaw model can create a spirit of cooperation and foster responsibility for each student, and can be a place for students to practice solving a problem or study material by working together through group discussions with their friends so that it can foster awareness of responsibility for students to they can comprehend the information that the instructor has delivered and can convey it back to their group friends (Febiyanti, Wibawa, & Arini, 2020).

This model not only wants students to learn cooperation and collaboration skills, but it can also train students in achieving social and human relations goals, which ultimately influence academic achievement, especially in completing assignments and problems related to learning and being able to achieve learning outcomes. the maximum (Hasanah & Himami, 2021). Apart from that, according to (Umar, 2019) "Students gain many benefits from productive collaborative activities. Collaboration can eliminate mental barriers resulting from limited experience and narrow perspectives." Therefore, it is important to stimulate cooperation skills from an early age, because in working together a person will be trained to be able to put aside individual interests and be able to prioritize the interests of the group.

METHOD

The Mix Method is the approach taken in this study, according to Cresswell and Clark mixed methods research centers on combining, analyzing, and collecting data quantitative and qualitative forms which will produce better understand the research problem than using a single approach (Pane Ismail & dkk, 2021). The research design used is the explanatory sequential design. To help analyze quantitative data, this approach starts collecting quantitative data and

then continues with collecting qualitative data. As a result, the results of research using this approach can be generalized (Novitasari, Pujiastuti, & Sudiana, 2022). The research was carried out by giving a pretest first to measure collaboration skills before carrying out research actions.

In this study, the student sample was class IV students and a population of 30, consisting of 16 female students and 14 male students, this research was conducted at SDN Pambudi Dharma, which is located in Cimahi city in January 2024. Students' knowledge and knowledge scores were used as data, collection methods in this research and collaboration skills as well as student and teacher activities regarding Jigsaw cooperative learning model, which can be detailed in the following table:

Table 1. Data Collection Technique

No	Data Type	Data Source	Data Collection Technique
1	Learning activities / processes		Observation sheet
2	Response to learning activities		Questionnaire Sheet
3	Interview	Teachers & Students	Interview Sheet
4	Knowledge Assessment		Test (PG questions and descriptions)
5	Cultural Parade		Skills Assessment works together

Data analysis is an effort to find and organize observation results systematically, interviews and other results to increase the researcher's understanding of the problems being researched and present them in findings for others. (Nurdewi, 2022). This research uses quantitative and qualitative data analysis. Quantitative data includes pretest and posttest data on students' collaboration skills.

The purpose of the pretest is to see whether The two classes' starting capacities are identical or different. Meanwhile, the posttest was carried out to see the abilities of the two classes after being given treatment. This data processing was carried out with the help of IBM SPSS Statistics for Windows software, namely by using the test. Before carrying out a t test on the data, a normality and homogeneity test of the data is first carried out.

RESULTS AND DISCUSSION

Results

This section describes the description of research data and statistical tests of research hypotheses, including to find out (1) improvement in collaborative skills using the Jigsaw type cooperative learning model in science and science learning CHAPTER 6 My Indonesia is Rich in Culture material; (2) teacher and student responses to education through the cooperative Jigsaw model in improving collaboration skills; (3) obstacles for teachers and students in learning utilizing cooperative learning of the model in the Jigsaw style in improving collaboration skills. The sample in this research was class IV students who received learning

using the Jigsaw cooperative model. The following are the results of the pretest and posttest of students' collaboration skills:

Table 2. Comparison of Collaboration Skills Measurement Results,

Measurement	Measurement results			
	Ideal Value	Minimum	Maksimum	Average
Pretest	100	0,25	68,75	42,19
Postest	100	56,25	93,75	81,46

From the analysis results shown in table 2, it is known that the pretest score for collaboration skills with a minimum of 0.25 and a maximum of 68.75 is still categorized as requiring improvement. However, after receiving treatment, the students' grades increased relatively significantly. After receiving treatment with the Jigsaw cooperative learning model, the minimum student the pretest score was 56.25 and the maximum was 93.75. The average student pretest score was 42.19. After receiving treatment, the student's posttest score increased to 81.46 and was categorized as very good. From these results, it means that there was an increase of 44.1. It can be seen that students' initial skills before and after being given treatment using the Jigsaw learning model experienced differences in the average increase from the pretest scores that had previously been given.

Then the results of the ensuing study data were conducted, using the independent t-test, homogeneity test, and normality test as tests requirements.

Table 3. Pretest and Posttest Normality Test

Class	Sig.	Significance	Information
Pretest	0,66	0,66 > 0,05	Normal
Posttest	0,427	0,427 > 0,05	Normal

Based on table 3, it is known that the pretest normality test value is 0.06 which is greater than 0.05 and the posttest value which is 0.427 is greater than 0.05. Based on this data, Ha is rejected and Ho is accepted because the data is normally distributed. From the data above, it can be seen that the pretest and posttest results obtained with the Jigsaw learning model are significant because they are more than > 0.05. So it is concluded that the Jigsaw cooperative learning model has a normal distribution.

Table 4. Pretest and Posttest Homogeneity Test

Data	Sig	Significance	Information
Pretest			
Posttest	0,621	0,621 > 0,05	Homogen

Based on table 4, the sig value is obtained. in pretest and the posttest data it was 0.621. Given the larger of the two data sets (0.05), Ha is rejected and Ho is approved, and both data are declared homogeneous. The next stage is to carry out a T test analysis utilizing the T test for independent samples. T tests are used to see if there is a difference in effectiveness between each independent variable, namely the two pretest and posttest groups, on the dependent variable, namely the collaboration skills Among elementary school pupils in the fourth grade. The following table displays the T test analysis findings:

Table 5. The Results of Independent Sample T-Test Analysis of pretest data

Sig. (2-tailed)	Significance	Information	It means
0,373	0,373 > 0,05	Ho diterima	Tidak ada perbedaan

Table 5 indicates that the significance level (two-tailed) is 0.373, which is higher than 0.05. These statistics, which show that Ho was rejected and Ho was approved, suggest that there is no variation in the critical thinking skills of the students.

Table 6. The Results of Independent Sample T-Test Analysis of posttest data

Sig. (2-tailed)	Significance	Information	It means
0,000	0,000 < 0,05	Ha ditolak	Terdapat perbedaan

Table 6 indicates that the significance level (two-tailed) of 0.000 is less than 0.05. Given that Ho was turned down and Ha was approved based on this data, it can be said that there are variations in the collaboration abilities of the students.

Table 7. N-Gain results pretest and posttest data

N-Gain Persen	Sig	Information
Pretest	0,702	Sangat efektif
Posttest		

Based on table 7, it is known that the sig in the pretest class and posttest class is 0.7024, so the increase in collaboration skills is classified as high. Then for N-gain percent, the result was 70.2401 in the very effective category.

Furthermore, the data from the questionnaire in this research was carried out to determine the responses of teachers and students to utilizing a cooperative Jigsaw-style learning methodology in enhancing pupils' abilities to work together. Next, the average value of the total student questionnaire scores was calculated, so the average student questionnaire score was 89.55, which was in the "Very Good" category. Meanwhile, the teacher's response was obtained from the questionnaire results with a score of 86.6 it fell into the "Very Good" category.

It can be concluded that many students enjoy studying science and technology in groups because it makes it easier for students to understand a lot of material, speeds up the work on assignments, then students become braver to express opinions and help other friends to explain material they don't understand. This is in line with the opinion according to (Umami & Musyarofah, 2020) Social studies learning itself has an important role in developing social skills. According to Bloom, thinking skills, academic skills, social skills and research skills are skills that must be taught through social studies learning. Meanwhile, according to (Suhelayanti, et al., 2023) "Giving science subjects to elementary/MI students is prioritized so that they can have social skills, because it is through these social skills that students will be able to work together well and communicate well." Social studies lessons can help students learn social skills by teaching them how to interact and cooperate with their friends in the environment to complete assignments, because through these social skills, students will be able to work together well and communicate well.

The results of the analysis of the interviews that have been carried out, provide information regarding the teacher's difficulties in implementing this model, namely when conditioning students, because when moving home groups and expert groups, apart from being difficult to condition students, teachers need time to move home groups and expert groups until students can return to being conducive. as previously. This is in line with the opinion according to (Handayani, 2020) Creating a conducive and democratic learning atmosphere can be created through an educational procedure approach that must be conditioned from the beginning of learning to the end of learning. Disorganized classroom management will have a negative impact on the teaching and learning process, so that teachers will find it difficult to control students so that expectations of achieving learning objectives are very low (Khasanah, Utami, & Hartati, 2021). So it can be concluded that a conducive learning atmosphere will be created if it is supported by a comfortable and peaceful atmosphere around the class or school.

Based on the results of statistical tests and treatment enhancing the collaborative abilities of grade IV elementary school pupils through the use of the Jigsaw cooperative learning model, it can be concluded that learning is going well. Students are very enthusiastic about the interactive power point learning the media used so that students follow every process in application of the learning methods implemented.

Discussion

Student achievement in the pretest results shows the interpretation that there is a need for improvement. Students were still not able to apply cooperative skills during learning well. After being treated for 4 meetings with the implementation of the Jigsaw method of cooperative education, students were quite enthusiastic and seemed enthusiastic about carrying out learning so that there was an improvement during the posttest. The results show that there is always an increase in each indicator in achieving collaboration skills. In this way, The Jigsaw cooperative model's implementation can enhance students' collaboration skills. The importance of this collaboration is that students are able and brave to convey their opinions without any hesitation, and with this collaboration it is hoped that students will be able to understand learning material in class more clearly and students will be able to have the ability to interact well.

This is in line with the opinion according to (Depila, Mulyasari, & Riyanti, 2023) That because humans are social creatures, without cooperation there would be no individuals, families, organizations and other associations. So from this it can be seen that an attitude of cooperation must be developed so that students can have an attitude of cooperation that will help them in

their future lives. The importance of this collaboration is that students are able and brave to convey their opinions without any hesitation, and with this collaboration it is hoped that students will be able to understand learning material in class more clearly and students will be able to have the ability to interact well.

Working together also makes each individual in the group more confident, because he is sure that his shortcomings will be complemented by his other group friends. Apart from that, it can prepare students to learn how to obtain various knowledge and information from themselves, teachers, friends, textbook materials or other learning sources. As well as increasing students' ability to work together with other people in a team and forming individuals who are open to accepting opinions and getting children to always be active and creative in developing their analysis (Ehrlich, 2019). Therefore, it is important to stimulate cooperation skills from an early age, because students can exchange ideas and information to find solutions and be successful in completing tasks to the extent they interact with fellow group members.

CONCLUSION

When putting the Jigsaw cooperative model into practice, there are a number of factors to take into account, such as the students' seating arrangement, appropriate perception based on their learning stage, the teacher's instructions, the media used, creating a fun learning environment for all students so that the suggestions in Jigsaw cooperative learning are successfully implemented, and providing motivation by boosting students' self-confidence and enabling them to apply collaboration skills effectively based on their own experiences. The Jigsaw cooperative model learning process is carried out according to steps, which are directly visible from the step-by-step procedure. In implementing the Jigsaw cooperative model, there has been a big leap or improvement in students' collaboration skills. This can be proven by having a pretest on students' collaboration skills based on their own experience. Apart from that, there are results from obtaining questionnaires given to teachers and students after conducting research, and treatment using the Jigsaw type cooperative learning model, with very good grades obtained.

The application of the Jigsaw, an alternative method of instruction is the cooperative learning approach in elementary schools to improve students' collaboration skills, because students become more enthusiastic when studying in groups because during normal learning students are usually sleepy and get bored quickly. Students also become braver in asking questions and expressing opinions, there is no longer any fear or embarrassment about asking questions and expressing opinions after having a study group. Students become more enthusiastic and diligent in learning, usually when in a group there are students who are active and full of enthusiasm for learning, it will have a good impact on the rest of their group, so that it will make other group members also enthusiastic and active when the learning takes place. Apart from that, usually during normal learning, students who are at the back of the class do not be mindful to the explanations given by the teacher, because they are busy chatting and feel that studying is not fun compared to playing and chatting with friends. The Jigsaw cooperative learning model can be applied by teachers by adjusting the stages of the existing model, so that it can motivate students to participate in learning.

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34   Puspita A T.-1, Nurfurqon F F. (2024). The Use Of Jigsaw Type Cooperative Learning Model To Improve Class IV Primary School Cooperation Skills

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