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The Effect of the Round Robin Learning Model on Collaboration Skills Among Students in Grade IV of MIN 1 West Lampung

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ABSTRACT

Collaborative skills are essential for learning. Teacher-centered learning often leads to students lack of active participation in learning activities, resulting in low collaborative skills. One way to improve students collaborative skills is by implementing a round-robin learning model. This model provides equal opportunities for all students to learn in groups, preventing any single student from dominating. This study aimed to determine the effect of the round-robin learning model on students' collaborative skills. This study was conducted at MIN 1 West Lampung. The research method used was a quasi-experimental design. Sampling was conducted using a purposive sampling technique, with 65 students each in the experimental and control classes. The instrument used was a collaboration skills questionnaire. This study shows the results of the post-test data hypothesis test using an independent sample t-test with a significance level of 5% (0.05) showing a Sig. (2-tailed) value of 0.038 which means that there is a rejection of H0 and acceptance of H1. Based on the results of the hypothesis test, it can be concluded that there is an influence of the round robin learning model on improving collaboration skills between students in class IV MIN 1 West Lampung.

Key Word *Learning Model, Round Robin, Collaboration Skills*

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INTRODUCTION

Education is a conscious and planned effort to create an atmosphere and learning process that allows students to actively develop their potential. The goal is for them to possess spiritual strength, self-control, good personality, intelligence, noble character, and the skills needed by themselves, society, and the nation (Haryanti, 2020). Education is a basic need for every individual, as through education, a person is formed into an individual with competencies in three aspects: cognitive (knowledge), affective (attitude), and psychomotor (skills) (Ifrianti, 2020). Therefore, it can be concluded that education is a conscious effort to cultivate the potential of human resources as students by supporting and facilitating their learning process. In the Koran, Allah has also

commanded us to study or seek knowledge as in the Koran, Surah At-Taubah: 122 below:

وَمَا كَانَ الْمُؤْمِنُونَ لِيَنْفِرُوا كَافَّةً ۚ فَلَوْلَا نَفَرَ مِنْ كُلِّ فِرْقَةٍ مِنْهُمْ طَائِفَةٌ لِيَتَفَقَّهُوا فِي الدِّينِ وَلِيُنْذِرُوا قَوْمَهُمْ إِذَا رَجَعُوا إِلَيْهِمْ لَعَلَّهُمْ يَحْذَرُونَ

Meaning:

"It is not fitting for the believers to go out all together (to the battlefield). Why should not some of them go out from each group to deepen their knowledge of religion and to warn his people when they have returned to him, so that they can guard themselves," (QS. At-Taubah [9]: 122).

In this verse, Allah SWT commands believers to deepen their knowledge of religion so that they can warn people so they can protect themselves. Apart from religious knowledge, of course other knowledge is also needed for self-protection and to be equipped for life. Nowadays, a way to deepen knowledge can be done by participating in learning activities (Awiria, 2021)

However, based on observations and interviews with class teachers at MIN 1 West Lampung, it was found that students' collaborative skills were still relatively low. Students were less able to actively participate in group discussions, tended to work individually, and certain students often dominated decision-making. This indicates that the learning approach implemented was not optimally able to improve students' social skills. Furthermore, teachers tended to use discovery learning methods (Amelia & Inayatillah, 2025). The Discovery Learning model currently used by teachers tends to emphasize the individual discovery process, where students are encouraged to discover concepts or knowledge independently through exploration and observation (Dinova et al., 2024). Although this model can foster independence and in-depth conceptual understanding, in practice, Discovery Learning is less than optimal in developing collaborative skills among students because group interaction and cooperation are not the primary focus (Sifa et al., 2020). This contrasts with the Round Robin model, which is specifically designed to encourage the active involvement of all group members through turn-based discussions. In this model, each student is given equal opportunities to express opinions, listen to, and respond to the ideas of their peers, making it more effective in developing collaborative skills (Asyafah, 2019). Therefore, the implementation of the Round Robin learning model is considered more appropriate and has a positive impact on improving collaborative skills among students compared to the Discovery Learning model.

This low level of collaboration is thought to be partly due to the inappropriate learning strategies employed. Conventional, teacher-centered learning models don't provide enough space for students to actively interact.

Therefore, innovations in learning approaches are needed that foster healthy interaction and collaboration among students (Huda, 2018)

One alternative strategy that can be implemented is the use of the Round Table cooperative learning model (Johnson & Johnson, 2019). This model involves all group members actively taking turns in presenting ideas or completing written assignments on the same worksheet. With this approach, each student is encouraged to participate and value the contributions of their peers. The Round Table model is believed to foster a sense of shared responsibility, strengthen social interactions, and create a more inclusive and equitable group work environment.

Based on previous research, a study conducted by Huda found that students taught using this technique experienced a 70% improvement in social skills. Another study by Yuliana showed that Round Robin can improve the ability to listen to and respect each other's opinions by up to 65%. These studies demonstrate that this model is not only effective in improving academic skills but also in building student character.

Based on the learning outcome data, it was found that out of 40 students, 15 students had active participation skills in groups, 3 students had good listening skills, 2 students had willingness to share tasks and take responsibility, 5 students had mutual respect, 7 students had positive conflict resolution skills, 3 students had joint decision-making skills, and 5 students had effectiveness in collaboration skills. It can be concluded that there are still many students who have low collaboration skills. In learning in grade IV at MIN 1 West Lampung, it is not optimal so improvements are needed in the learning process.

Based on this background, this study aims to examine the effect of the Round Robin learning model on the collaboration skills of grade IV students at MIN 1 West Lampung, West Lampung. This research is expected to contribute to the development of effective learning strategies in improving students' social skills. because, the reality in the field is often not in line with existing theories. In the learning process, students, especially at MIN 1 West Lampung, experience various difficulties. Therefore, the researcher is interested in this study entitled "The Effect of the Round Robin Learning Model on Collaborative Skills Among Students in Grade IV of MIN 1 West Lampung West Lampung."

RESEARCH METHOD

The research method used was a quasi-experimental design with experimental and control classes (Sugiyono, 2013). Population in this study was all fourth-grade students of MIN 1 West Lampung who were registered in the

odd semester of the 2024/2025 academic year. Sampling from the population was determined using purposive sampling, a sampling technique that selects samples based on certain considerations and characteristics. The instrument used was a collaboration skills questionnaire.

Instrument testing was conducted to ensure the instrument used in the research was suitable for use (Sulistiyowati, 2017). Test instrument analysis consisted of validity and reliability testing, difficulty level and discrimination analysis (optional), and instrument revision. The instrument analysis procedure was carried out through the following stages:

Validity Test

The validity used in this study was content validity. Content validity was achieved through:

1. Developing a question grid based on collaboration skill indicators.
2. Review by expert judges, namely supervisors or experienced teachers, to assess the suitability of the questions to the indicators and learning objectives.
3. Validity was achieved if the questions represented the indicators and were appropriate for the cooperative learning context.

Reliability Test

Reliability demonstrated the instrument's consistency in measuring collaboration skills. Reliability testing was conducted by:

Conducting a trial run on students outside the sample class (e.g., a parallel class). The trial data were analyzed using the Cronbach's Alpha reliability formula if the data were in the form of a scale or rating.

Instrument Revision

After conducting validity and reliability tests, revisions were made to any questions that were inappropriate or did not meet the validity and reliability criteria before use in the main study.

Data analysis techniques were used to process and interpret data obtained from the results of the student collaboration skills test before and after the implementation of the Round Robin learning model (Roflin & Pariyana, 2021). Data analysis was conducted quantitatively using the following steps:

Calculating Observation Scores

Each student received a score from the observation sheet based on 20 assessment items.

Maximum score: 20 x 4 = 80 points.

Converting Scores to a 100-point Scale

The scores obtained from the practical test were explained based on the scoring guidelines. The total score was then converted to a value on a scale of 0–100 using the formula:

Score = ((Obtained Score)/(Maximum Score)) x 100

Calculating the Difference (Gain)

To determine the improvement in collaboration skills after the treatment: Gain - Post-test Score - Pre-test Score

Hypothesis Testing

Hypothesis testing was used to determine whether there was a significant effect of the Round Robin learning model on students' collaboration skills (Ardiansyah et al., 2023). Because this study used a quasi-experimental design with a Nonequivalent Control Group Design, the following statistical testing techniques were used:

Independent t-test (Unpaired Sample t-test) → used if the data is normally distributed and homogeneous.

Mann-Whitney test → used if the data is not normally distributed or homogeneous.

H_0 (Null Hypothesis): There is no significant effect of the Round Robin learning model on students' collaboration skills.

H_1 (Alternative Hypothesis): There is a significant effect of the Round Robin learning model on students' collaboration skills.

Decision-Making Criteria:

If the calculated t value > t table at a significance level of 5% (α = 0.05), then:

H_2O is rejected, H_21 is accepted.

This means: There is a significant effect of the Round Robin learning model on students' collaboration skills.

If the calculated t_value ≤ t_table then:

H_O is accepted H_1 is rejected Meaning: There is no significant influence

RESULT AND DISCUSSION

Table 1.
Table Normality Test

	Class	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
collaboration_skills	1	.116	32	.200*	.956	32	.218
	2	.142	33	.089	.969	33	.461
*. This is a lower bound of the true significance.							
a. Lilliefors Significance Correction							

Based on Table above a normality test was conducted to determine whether the collaboration skills data in the experimental class (class 1) and control class (class 2) were normally distributed. Based on the results of the Kolmogorov-Smirnova test, the significance value for the experimental class was 0.200 and for the control class was 0.089. Meanwhile, in the Shapiro-Wilk test, the significance value for the experimental class was 0.218, and for the control class it was 0.461. Since all significance values in both tests were greater than 0.05, it can be concluded that the collaboration skills data in both classes were normally distributed. Thus, the assumption of normality was met, and the data were suitable for further parametric statistical analysis.

Table 2.
Collaboration Skills Questionnaire Results in Experimental and Control Classes

Data	Experimental Class	Control Class
Highest Score	72	72
Lowest Score	35	20
Average	50	44
Number of Students	32	33

Based on Table above the data on the collaboration skills of students in the experimental and control classes shows a difference in achievement scores. The highest score achieved by students in both classes was the same, at 72. However, there was a difference in the lowest score, with the experimental class having the lowest score of 35, while the control class had a lower lowest score of 20. The average student score in the experimental class was 50, higher than the control class, which had an average of 44. The experimental class had 32 students, while the control class had 33. This difference in average scores indicates that, in general, student performance in the experimental class was better than that in the control class.

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Discussion

The purpose of this study was to determine the significant effect of the Round Robin learning model on improving collaboration skills among students in grade IV of MIN 1 West Lampung. The achievement of students' collaboration skills was determined based on the results of a post-test questionnaire. The sample used in this study was grade IV A students as the experimental class, who received the round robin learning model, and grade IV B students as the control class, who received the lecture learning model. The research conducted demonstrated the effect of the round robin learning model on students' collaboration skills. This was evident from the results of the hypothesis test using an independent sample t-test, which showed a Sig (2-tailed) value less than 0.05 ($0.038 < 0.05$).

The results showed an increase in students' collaboration skills after the implementation of the Round Robin model. This was evident from the comparison of observation results and the post-treatment questionnaire (post-test). These improvements include several indicators of collaboration skills, such as:

1. Active participation in groups
2. Good listening skills
3. Willingness to share tasks and take responsibility
4. Mutual respect
5. Ability to resolve conflict positively
6. Joint decision-making

Before implementing the Round Robin model, students tended to be passive in group work, did not value the opinions of their peers, and often only one or two students completed group assignments(Rahma, 2023). However, after the model was implemented, discussions became more lively, all students had a turn to speak, and responsibilities within the group became more evenly distributed (Wati et al., 2020).

The Round Robin learning model has proven effective in improving interaction and communication among students. Because each student is required to express their opinion in turn, each individual has a clear role and contribution within the group(Warsono & Hariyanto, 2019). This has a positive impact on increasing student self-confidence and responsibility. Furthermore, the Round Robin model also helps teachers manage the classroom more dynamically (Rohimah, 2019). Students not only learn the subject matter but also learn how to work together and build positive social relationships with their classmates (Puspitasari et al., 2019). In implementing the Round Robin model, there are several obstacles that need to be considered, such as:

1. Some students lack confidence when expressing their opinions.
2. Lack of time during the learning process, as each student needs to be given a turn to speak.
3. Some students are not accustomed to working together and still tend to be individualistic.

However, these obstacles can be overcome through habituation, teacher motivation, and strengthening the active role of each group member.

The results of this study align with previous research that states that cooperative learning models, particularly Round Robin, are effective in improving students' social and collaborative skills. Several previous studies have shown that this model not only improves academic achievement but also fosters positive attitudes in group work, as follows:

Research conducted by (Yanti, 2024) entitled "The Effect of the Round Robin Brainstorming (RRB) Learning Model on Students' Critical Thinking Skills in Fourth Grade Science at SD Negeri 17 Rejang Lebong (2024)." This study showed that the post-test results showed that the average achievement score for the critical thinking skills indicator in the experimental class was 51.50% (sufficient) and the control class was 41.92% (sufficient). Furthermore, there was an increase in the average score in the experimental class from 53.75 to 85.00, a higher average than the control class, which rose from 37.25 to 66.50. The results of the post-test hypothesis test using the T-test showed a Sig. (2-tailed) value of 0.000, which is less than 0.05 (0.000 < 0.05). Therefore, Ho is rejected and Ha is accepted. This indicates that the Round Robin Brainstorming

(RRB) learning model has an effect on students' thinking skills in science learning.

This is in line with the results of the researchers' research, which emphasized the advantages of the round-robbin method, namely its ability to teach sharing skills among group members, foster interactions between students that can improve cohesiveness and learning outcomes, and encourage active student communication. Furthermore, this model can help control group behavior.

Based on the research results, it can be concluded that the Round Robin learning model has a positive influence on students' collaboration skills. The implication of these results is the importance of implementing active and participatory learning models in the learning process in elementary schools. Teachers are expected to use this model as an alternative to improve students' soft skills, particularly in group work.

CONCLUSION

This study aims to determine the significant effect of the Round Robin learning model on improving collaboration skills among students in class IV MIN 1 West Lampung. The results of the post-test data hypothesis test using the independent sample t-test with a significance level of 5% ($\alpha = 0.05$) showed a Sig. (2-tailed) value of 0.038 which means there is a rejection of $H0$ and acceptance of $H1$. Based on the results of the hypothesis test, it can be concluded that there is an influence of the round robin learning model on improving collaboration skills among students in class IV MIN 1 West Lampung.

The researchers offer some suggestions for consideration, including:

1. Before beginning learning with the round robin model, students should first be given an explanation of the learning model used in the classroom.
2. Implementing the round robin model requires considerable time, so teachers implementing this model should manage their time effectively to maximize learning objectives.
3. For future researchers, the round robin learning model can be implemented in other concepts that align with its learning syntax.

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