The Effectiveness of Cooperative Learning Model of Auditory, Intellectual, Repetition (AIR) Type Assisted by PowerPoint Media on Class VII Quadrilateral and Triangular Material in Kamus Yapirru Tebas Islamic Junior High School

Nur Baiti Jannah[1*], Fajriyah Rachmatika[2]
[12]Institut Teknologi dan Sains Nadhlatul Ulama Pasuruan
[1]nurbaitijannah06@gmail.com, [2]rachmatika@itsnupasuruan.ac.id
*Correspondence

Abstract

This study describes the effectiveness of learning in the classroom using the auditory, intellectual, and repetition (AIR) cooperative learning model. This study also uses the help of PowerPoint media. This article's data presentation is part of a research report whose primary focus is observing the effectiveness of learning using the auditory, intellectual, repetition (AIR) cooperative learning model with the help of PowerPoint media. The research method uses descriptive qualitative to describe student learning outcomes, activities, and responses. Student learning outcomes are measured using learning outcomes tests and quiz question tests. Student activity data was carried out using student activity observation sheets. Student activity data was collected using student response questionnaire sheets. The subjects of this research were class VII students consisting of 24 students. Research results prove that: (1) Overall student learning outcomes meet the minimum completeness criteria (KKM), that is, all students score above the KKM. (2) Student activity is classified as active during learning. (3) Student responses are categorized as very good or positive.

INTRODUCTION

Low scores in student learning outcomes and lack of desire to learn mathematics are two problems that often arise in education. One reason is that many people think that math is difficult and tedious. Learning in the classroom is sometimes still dominated by teachers. Students are still given few opportunities to convey ideas and opinions and discuss with their classmates. This results in students' activeness in learning in class less than optimal. A learning process is considered high quality if it is efficient, meaningful, and supported by quality abilities. In the learning process, it is necessary to use different or innovative learning models to foster the quality of education. A teacher is expected to help students increase curiosity, build a positive attitude toward learning, encourage independence, think critically, and solve problems. In the learning process, an educator is the first person responsible for sharing knowledge with students. Based on this, there needs to be new things in the teaching and learning process that can make students not .

feel bored and more excited so that students are active in learning. In learning mathematics, teachers must use methods that can create a supportive atmosphere and conditions, making it easier for students to understand the teacher's lessons. Learning is not monotonous, and there needs to be a renewal in learning so that it is not dull by applying learning models, methods, and approaches during the learning process. The learning model is expected to create learning conditions and a pleasant learning atmosphere, increase the memory of the material provided, and make students active while learning.

Learning will be successful if students actively collect and compile information (knowledge). Learning outcomes not only increase knowledge but can also increase critical thinking, problem-solving, and confidence to voice opinions. Therefore, it is essential to pay attention to student activities during their learning, and learning will be more effective if learners are more engaged (Yannidah, 2013). Learning is declared effective if there are results from learning objectives that have been planned with those applied during the learning process, and learning is said to be effective if it can provide new knowledge, train students' abilities, and encourage them to reach the goals to be achieved optimally (Damopolii et al., 2020)

The learning model used in this study is the cooperative learning model. Cooperative learning is one of the teaching methods that encourages student cooperation to achieve common goals. It is designed to increase student engagement, allow students to practice taking charge and making group decisions, and interact and learn from others from diverse backgrounds (Hasanah, 2021). Cooperative learning requires students to work together in a small team to complete a task, solve a problem, or do something for a common goal (Kajian et al., 2020).

The learning model of auditory, intellectual repetition (AIR) type consists of auditory, intellectual repetition (AIR). Auditory is learning to use hearing, speaking, studying, arguing, expressing opinions, presenting, and responding. Intellectually is to familiarize the skills of thinking, practicing, and concentrating the mind, using it through identifying, finding, logic, solving, creating, constructing, applying, and problem-solving. Repetition is repetition to expand and deepen the knowledge of students who need to be trained through quizzes, assignments, and question work (Hasmiah Mustamin et al., n.d.).

Learning in this study uses PowerPoint media. PowerPoint has many uses, and PowerPoint can result in students focusing more or avoiding temptation so that students can learn better (Damayanti & Qohar, 2019). PowerPoint is an influential way of teaching (Dewi & Izzati, 2020). Learners' attention and participation in learning develop when using PowerPoint (Damayanti & Qohar, 2019).

METHOD

This research uses qualitative research methods, namely analysis that intends to understand the social facts of the community by finding even and precise results that can be described, reporting the specification observations obtained from information sources,

and carrying out within a natural framework. This descriptive qualitative approach intends to explain learning outcomes, student activities, and student responses during learning activities using a cooperative learning model type auditory, intellectual, and repetition (AIR) on quadrilateral and triangular material.

The subjects of this study were 24 class students VII Islamic Junior High School Kamus Yapirru Tebas School Year 2022/2023, material quadrilateral and triangular. This research instrument is an observation sheet of the type cooperative learning model auditory, intellectual, repetition (AIR), Student learning outcomes tests, student activity observation sheets, and student response questionnaires. The data collection methods in this study are test sheets, observation sheets, and questionnaire sheets.

RESULTS
Student Learning Outcomes
Data analysis of student learning outcomes is carried out using learning outcomes tests and quiz question tests. This data is to see the completeness of student learning.

$$X = \frac{\sum Many\ students\ pass \geq 75}{Students\ taking\ the\ test} \times 100\%$$

The class is said to have complete learning outcomes if the average percentage is 70% (Damopolii et al., 2020). The average value of student learning outcomes is presented in Table 1.

Table 1. Student Learning Outcomes

No	Student Name	Learning Outcomes Test Scores	Quiz Question Scores	Completeness
				KKM 75
1	AR	100	100	Complete
2	AS	92	100	Complete
3	DM	100	100	Complete
4	HA	88	90	Complete
5	INA	95	95	Complete
6	LS	100	90	Complete
7	MF	100	90	Complete
8	MI	100	95	Complete
9	MMA	100	96	Complete
10	MNN	88	90	Complete
11	MRR	95	98	Complete
12	MS	100	100	Complete
13	MPA	100	100	Complete
14	RB	92	95	Complete
15	SAA	95	95	Complete

16	SN	100	90	Complete
17	SR	88	90	Complete
18	TJ	100	90	Complete
19	WRF	100	90	Complete
20	NS	92	100	Complete
21	HM	88	95	Complete
22	AMC.	92	100	Complete
23	PSH	95	100	Complete
Average Amount		**95,65**	**95,17**	
Freq. Sum PD	**≤ 50**	0	0	0
	50-74	0	0	0
	75-100	23	23	23
Complete presentation (%)				**100%**

Student Activities

This analysis of student activity data was carried out using student activity observation sheets. This data is to see student activity during the learning process.

$$X = \frac{Percentage\ of\ each\ activity}{Total\ of\ all\ aspects}$$

The average student activity score is presented in Table 2.

Table 2. Student Activities

No	Student Activities	Max Score (N)	Sum (S)	Percentage%
1.	Student Attendance	72	70	97,22
2.	The focus of students' attention	72	69	95,83
3.	Student activeness in asking questions	72	52	72,22
4.	Think and motivate fellow group members	72	69	95,83
5.	Student communication skills	72	55	76,38
6.	Student activeness in arguing and responding	72	52	72,22
7.	Collect assignments	72	69	95,83
	Average			**86,50**

Student Response

This analysis of student activity data was carried out using student response questionnaire sheets. This data is to see student responses during the learning process by applying the learning model that has been done. Each answer has a score using a modified Likert scale by Masriyah (Isnaini, 2022). Percentage of student responses for each item:

$$\%NRS = \frac{\sum NRS}{NRS\ Maximum} \times 100\%$$

Table 3. Student Response Score-Category Score

%NRS	Category
0% ≤ %NRS < 25%	Very Lacking
25% ≤ %NRS < 50%	Less
50% ≤ %NRS < 75%	Good
75% ≤ %NRS < 100%	Excellent

Table 4. Results of student response questionnaire

No	Statement	Frequency				Σ NRS	% NRS	Category
		STS	TS	S	SS			
1	I feel happy with the way teachers teach math subjects that are applied to the use of learning models. *Auditory intellectual repetition (AIR)*	0	0	7	16	62	89.85	Excellent
2	Learning model *Auditory Intellectually Repetition (AIR)* merupakan Interesting learning model	0	0	11	12	58	84.05	Excellent
3	I feel happy discussing with classmates or between group members during learning	0	0	10	13	59	85.50	Excellent
4	I find it easier to understand quadrilateral and triangular material when using learning models. *Auditory intellectual repetition (AIR)*	0	0	13	10	56	81.15	Excellent
5	I feel that there is progress after applying the model of *Auditory intellectual repetition (AIR)*	0	0	10	13	59	85.50	Excellent
6	I find it difficult to understand concepts in quadrangular and triangular material when taught using	12	11	0	0	58	84.05	Excellent

	models of *Auditory intellectual repetition (AIR)*						
7	I feel uncomfortable in the following learning using learning models: *Auditory intellectual repetition (AIR)*	11	12	0	0	57	82.60	Excellent
8	I feel the learning model of *Auditory Intellectually Repetition (AIR)* is Ineffective when applied in the classroom.	13	10	0	0	59	85.50	Excellent

DISCUSSION

Student Learning Outcomes

Based on data analysis that has been carried out with the results in Table 1, it is proven that student learning outcomes as a whole get scores above KKM for quadrilateral and triangular material after applying the type cooperative learning model auditory, intellectually, repetition (AIR) PowerPoint aided that varies with an average score of 95.41. The lowest learning outcome score obtained by students is 88, and the highest score obtained by students is 100. The value of student learning outcomes is obtained from the average score of group learning outcomes test questions and quiz questions done individually. As in Table 1, the average learning outcomes test scores and quiz question test scores after applying the type cooperative learning model auditory, intellectual, repetition (AIR) PowerPoint-assisted scores are mixed. The average test scores of learning outcomes and quiz questions show that students understand the material well on the quadrilateral material taught using cooperative learning types: auditory, intellectual, and repetition (AIR) PowerPoint-aided. Some students get the lowest scores based on the tests because of test errors. One example is that students are still wrong in multiplying numbers, which should be born, but students are added. Students still lack focus when doing test questions. Student learning outcomes are categorized as complete, and Damopolii et al. stated that the class is said to have total learning outcomes if the average percentage is 70% (Damopolii et al., 2020).

Student Activities

Based on observations carried out during learning by applying a cooperative learning model type auditory, intellectual, repetition (AIR) PowerPoint helped the quadrilateral and triangular material obtain results as in Table 2. It shows that the average total percentage of overall student activity is 86.50. This percentage has exceeded 50% so that it can be determined that students are classified as active during learning towards applying the type of cooperative learning model auditory, intellectual, repetition(AIR) PowerPoint aids on quadrilateral and triangular material. Student activities to think and motivate fellow group members and the focus of students' attention were the most prominent, with a percentage of 95.83%. This activity dominated most students because

it applied a cooperative learning model of the type of auditory, intellectual repetition (AIR) carried out in groups. Student activity: Student activeness in arguing and giving responses is the lowest student activity, with a percentage of 72.22%. This is because some students are still afraid to discuss or give answers. Overall, student activities during learning by applying a cooperative learning model type auditory, intellectual, repetition (AIR) PowerPoint-assisted quadrilateral and triangular materials have a frequency that is not much different for each student activity.

Student Response

Based on the student response questionnaire given at the second meeting, the results are in Table 4. Based on the table, it shows that all student responses to the AIR learning model with the help of PowerPoint are more than 50%. Thus, all student responses fall into the excellent category. The student response questionnaire at the second meeting consisted of 8 questions with five favorable and three unfavorable items. Several students answered in agreement or strongly agreed with good articles. Moreover, they answered strongly disagree and disagreed on negative things. Overall, students gave positive responses to the learning model that had been carried out. This can be proven from the students' answers to the questionnaire provided. Each statement item falls into the category of excellent. It can be concluded that student's response to the cooperative learning model is type Auditory Intellectually Repetition (AIR) Quadrilateral and triangular material with the implementation of learning in class and positive student interest.

CONCLUSION

Based on the study's results, it can be concluded that: (1) students' learning outcomes as a whole meet the minimum completeness criteria (KKM), namely, all students get scores above KKM. (2) Student activities are classified as active during the learning process with an average of 86.50%. (3). Student responses regarding the PowerPoint-assisted AIR-type cooperative learning model are categorized as very good or positive.

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