Research Article

Effectiveness of Class Management Using the Resource Based Learning (RBL) Learning Model on Mathematics Learning Outcomes of Class VIII Students at SMP Negeri 2 Rantau Selatan

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ABSTRACT

Resource Based Learning (RBL) on students' mathematics learning outcomes by applying data collection methods through observing learning activities and learning results tests. The research subjects consisted of 36 students in class VIII 4 of SMP Negeri 2 Rantau Selatan for the 2023/2024 academic year. In this research, it was seen that there was a significant increase in the effectiveness of classroom management in solving mathematics problems. The results obtained were (1) Class management in mathematics learning was in the good category, namely 66.6%; (2)In mathematics learning results, (pretest) carried out in class VIII6 mathematics less than 18 students have completed or 54% and 15 students have not completed or 45% of all students have learning outcomes that are classified as very poor in learning mathematics.; (3)in the mathematics learning results (protest) carried out in class VIII4, the mathematics learning results were very good, as many as 29 students had completed or 87% and 7 students had not completed or 19% of all students had learning results that were classified as very poor;(4) The total effectiveness of classroom management using the RBL learning model on a number of students' mathematics learning outcomes25.9%. Thus, there is25.9% of student learning outcomes are influenced by classroom management using the RBL learning model, while other components not counted in this research influence the remaining 74.1%. Based on this, it can be concluded that classroom management using the RBL learning model can influence the learning outcomes of students in classes VIII 4 and VIII 6 of SMPN 2 Rantau Selatan.

Keywords: Class management, Resource Based Learning, Learning outcomes

Introduction

A teacher's performance in the classroom has two main parts, namely teaching and classroom management. Learning activities must be designed to directly activate students to achieve their goals, such as identifying student needs, making lesson plans, providing learning material to students, asking questions to students, and evaluating student success. Activities can be completed efficiently and

effectively in class. Teacher-led classroom management is a form of administrative action necessary to manage a classroom effectively and achieve the extent to which effective classroom management responds to complex situations (Chris Van Wyk, 2021). It is not uncommon for there to be heterogeneity in management patterns and classroom learning systems implemented by each school. With Candy No. 29/2005 Legalization of School/Madrasah Accreditation, measures for calculating the suitability of Schools/Madrasahs are regulated based on predetermined benchmarks. This activity is carried out by BAN-S/M (National Accreditation Board for Schools/Madrasahs), and the results are reflected in the confirmation qualification ranking. According to Article 91 of Government Regulation no. 19 of 2005 all study programs must meet or exceed the criteria for providing quality education. Locating the person, organization, school, and other environmental factors that impact classroom management is critical.These indicators include that an educator must master the material or learning material that will be delivered, master or have learning interaction skills, be able to build effective communication with students, be able to design learning and manage the class. (Poonputta, 2022).

Classroom management is an important aspect to optimize the role and potential of educators in learning. The key to successful learning is improving the quality of student learning(Rumahlatu et al., 2021). Good learning requires effective classroom management (Paroqi, Mursalin, & Marhami, 2020). For this reason, a prerequisite is that teachers have knowledge of classroom management, skills and good attitudes in managing the classroom. Of course, it is not easy to achieve the goal of creating effective classroom management. Teachers as class managers must be able to plan appropriate and effective class management in their class, the activities carried out by students have been planned beforehand. The activities carried out must be oriented to the learning styles and abilities of each student as well as the material to be presented, so that the classroom management carried out by the teacher can create a conducive classroom atmosphere.(Kononets, Giynova, Zhamardiy, Mamon, & Liulka, 2020).

The effectiveness of classroom management, especially regarding student mathematics learning outcomes, has an important role in various scientific disciplines and in developing human thinking power. According to Paizaluddin and Ermalinda, learning outcomes are the results achieved by students after going through the learning process which can be seen from the report card grades which show the student's level of ability in mastering the subject matter. Given the importance of mathematics, efforts need to be made to improve various aspects of teaching so that students are able to understand mathematical concepts. Understanding mathematical concepts requires quite high generalization and abstraction skills. Meanwhile, currently students' mastery of mathematical concepts is still weak and even misunderstood(Ridlo, Dafik, & Nugroho, 2020).

SMPN 2 Rantau Selatan is a school that has similar characteristics to most secondary schools in Indonesia. This situation is appropriate to the age of the students, the conditions and situation of the school, and the learning model applied at SMPN 2 Rantau Selatan is also suitable for state schools in Indonesia. Based on the results of the Computer-Based National Examination (UNBK) for the odd semester of 2023, the mathematics score of SMPN 2 Rantau Selatan reached 50.00 on a scale of 100, which is the lowest score among the exam subjects. From interviews with mathematics teachers at SMPN 2 Rantau Selatan, it can be seen that when learning mathematics, students generally only understand the subject when the teacher provides examples of problems and their solutions. However, when faced with problems or problems that are different from the examples taught, students have difficulty identifying the steps to solve them. This information shows that students' understanding of mathematical concepts at SMPN 2 Rantau Selatan still needs to be improved.Achieving effective classroom management on mathematics learning outcomes is not an easy thing because understanding a mathematical concept is done individually. Each student has different abilities in understanding mathematical concepts(Rahayuningtyas, 2022). However, efforts need to be made to increase understanding of mathematical concepts for students' success in independent and group learning. One effort to overcome

this problem is that teachers are required to be professional in planning and implementing learning(Sabirin, Hasni, Fauzi, & Atsnan, 2021).

Therefore, teachers must be able to design mathematics learning with models, methods, theories or approaches that are able to make students learning subjects and no longer learning objects. So that students' learning difficulties can be minimized, teachers should be able to add other teaching approaches so that students are more active in learning, one of which is by implementing the Resource Based Learning (RBL) learning model. Resource Based Learning is a form of learning that confronts students directly with one or a number of learning resources individually or in groups, with all activities related to them. So it is not the conventional way in which teachers convey material to students(Reyes, Kyne, Lawrie, & Thompson, 2022).

In implementing the RBL learning model, students are required to actively obtain information from various sources. Students are free to learn at their own pace and according to their abilities. Each student is not required to obtain the same information as his friends so that students can learn happily and enthusiastically. By implementing the RBL learning model in this research, it is hoped that it can influence students' understanding of mathematical concepts(Mayolo-Deloisa, Ramos-de-la-Peña, & Aguilar, 2019).Based on the description above, it is necessary to conduct additional research on the effectiveness of classroom management using the Resource Base Learning (RBL) learning model on the mathematics learning outcomes of class VIII students at SMP Negeri 2 Rantau Selatan. It is hoped that the findings of this research will be useful in helping educators expand their knowledge, especially those related to classroom management. And as a recommendation for academics and researchers to use as a useful reference, especially to find out the influence of the effectiveness of classroom management on students' mathematics learning outcomes, reviewed using the RBL learning model.

Methods

The method in this research uses quantitative methods, namely research data in the form of numbers and analysis using statistics. This research was conducted at SMP Negeri 2 Rantau Selatan, Kab. Labuhan Batu, North Sumatra 2022/2023 academic year. The population used in this research was 262 spread across seven classes, namely classes VIII 1 to VIII, 8 students from SMP Negeri 2 Rantau Selatan with the sample used in this research totaling 36 students from class VIII 4 and 33 students from class VIII 6. Data collection techniques in research to quote data information through school observations, interviews, questionnaires and also recording important things. The tests used in this research were pretest and protest.

The technique for measuring the data analysis instrument test uses a simple linear regression analysis test technique for research numerical data and calculates the coefficient of determination (coefficient, simultaneous test and ANOVA F test). Based on the results of the analysis calculations, to carry out the analysis, prerequisite tests are first carried out, namely validity, reliability and hypothesis tests. In this study, the research results were calculated using the SPSS program.

Results and Discussion
Results

Calculate the correlation coefficient, which describes how each independent variable analyzed affects the dependent variable, or the coefficient of determination which assesses the impact of the independent variable on the dependent variable. (Rachman, 2018) offers the following interpretation rules to determine how much the independent factor influences the dependent variable: Unstandardized Coefficient Standardized Coefficient

Table 1. Correlation Coefficient Guidelines

Coefficient Interval Range	The Power of Relationships
0.00-0.199	Very Low
0.20-0.399	Low
0.40-0.599	Currently

0.60-0.799	Strong
0.80-1,000	Very strong

Table 2. Effectiveness of Class Management Determined by Output Results

Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12,151	,990		12,279	,096
	CLASS MANAGEMENT	,055	,032	,310	1,722	<.001
	RBL	,009	,059	,027	,150	,882

a. Dependent Variable: LEARNING RESULTS

The next step is to create a linear regression model using classroom management variables (X1), Resource Based Learning (X2) and Learning Outcomes (Y). To assess the potential relationship of the first model in this research, model formation was carried out. The results of the analysis of variance (ANOVA) model X1,X2 against Y are shown in Table 2 below. The following notation can be used to represent the regression analysis model of Class Management (X1), Resource Based Learning (X2) on Student Learning Outcomes (Y):

$$Y = 12.151 + 0.55 + 0.99X$$

The significance figure of 0.001 < 0.05 for the regression model developed is also listed in Table 2. This figure shows that there is sufficient evidence to support both the rejection of H0 and the suggestion that classroom management (X1), RBl (X2) have a relevant impact on student learning outcomes (Y). The SPSS application program is used by researchers as information from the following table to verify the coefficients:

Table 3. Number of Class Management Influences Determined by Summary Model Output Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.509a	,259	,185	3,297

a. Predictors: (Constant), RBL, CLASS MANAGEMENT

Based on the output of Table 3 from the SPSS Model Summary, the correlation coefficient between classroom management and mathematics learning outcomes is 0.509 (R) and 0.259 (R2). This shows how much student learning outcomes (Y) can be explained by the model created from Class Management (X1), RBL (X2), namely 25.9%, whereas the remaining 74.1% is affected by foreign components that are not taken into account. on the model..To see the continuation of decisions in research, hypothesis testing is carried out. The F test used aims to ensure the simultaneous impact of important independent variables on the dependent variable. A significance value of 0.05 is applied in Table 4. If Fcount > Ftable and the probability number t(Sig) > 1. The probability value (Sig) is 0.001 and the Fcount value is 6154.53. Sufficient evidence to reject Ho to make a decision based on Fcount (6154.53) > Ftable (3.18) and the number of probabilities (Sig) < significance value applied (0.001<0.05). This is substantial evidence that classroom management (X1), the RBL learning model (X2) simultaneously influence student learning outcomes (Y), the results of which are very large.

Table 4. Obtained Anova F Test Output

ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	43998.753	2	21999,377	6152.533	<.001b
	Residual	117,997	33	3,576		

Total	44116.750	35			

a. Dependent Variable: LEARNING RESULTS
b. Predictors: (Constant), RBL, CLASS MANAGEMENT

*Pretest*Class VIII6

At this stage the data that has been obtained is then described to provide an overview of students' mathematics learning outcomes which include the pretest scores on students' mathematics learning outcomes carried out in class VIII6. From these data it is revealed that class VIII6 students have poor learning outcomes, as illustrated in the following table

Table 5. Student Learning Outcomes (Variable Y) Frequency Distribution

Range	Characteristics	Number of Students	Percent
80-100	Very good		
70-79	Good		
60-69	Pretty good		
50-59	Not enough	18	54%
0-49	Very less	15	45%
	Amount	33	100%

Based on the table data above, 18 students who have completed mathematics learning outcomes or 54% are lacking and 15 students who have not completed them or 45% of all students have learning outcomes that are classified as very poor in mathematics learning.

At this stage the data that has been obtained is then described to provide an overview of students' mathematics learning outcomes which include protest scores for students' mathematics learning results carried out in class VIII4. From these data it is revealed that class VIII 4 students have good learning outcomes, as illustrated in the following table:

Table 6 Student Learning Results (Variable Y) Frequency Distribution
*Protest*Class VIII4

Range	Characteristics	Student	Percent
80-100	Very good	29	87%
70-79	Good		
60-69	Enough		
50-59	Not enough		
0-49	Very less	7	19%
	Amount	36	

Based on the data in the table above, the mathematics learning outcomes are very good, as many as 29 students have completed or 87% and 7 students who have not completed or 19% of all students have learning outcomes that are classified as very poor in mathematics learning.

Discussion

In general, the aim of classroom management is to provide opportunities for students to participate in various educational activities in a learning environment that supports their academic, social, sentimental and psychological needs. Success in the classroom management process is reflected in the goals achieved. As a result, teachers must determine goals for their classroom management strategies. In general, classroom management seeks to maximize learning outcomes and encourage efficiency and effectiveness in achieving learning goals (Hidayanti, 2019). In fact, the effectiveness of classroom management cannot guarantee the

success of teaching, but without it it is impossible to achieve success in learning. Proper classroom management can set the conditions for cognitive learning. Teachers can avoid failure to overcome crowded classrooms by carrying out classroom management in this area. Learning outcomes are changes that students make as a result of their learning experiences. The results are based on the students' initial knowledge (Rahayu & Fitriyani, 2021). Final exams or end of semester exams are the most common way to measure someone's success in the learning process.

Based on responses to the classroom management questionnaire distributed by researchers to class VIII 4 SMPN 2 Rantau Selatan, classroom management has a fairly good level. This can also be seen in the results of the classroom management survey which included 33 respondents who chose quite good answers in this category. This research divides the classroom management effectiveness measurement matrix into 3 general indicators, namely the classroom management matrix, leadership matrix and learning outcomes matrix. the average indicator for each assessment matrix is more than 60%. The classroom management matrix is represented by the teacher responsiveness index, attention breaker, teacher giving clear instructions, behavior change and problem solving identification. The leadership matrix is represented by the group leadership index. The learning outcome matrix is represented by the value improvement index. This value shows that the classroom management used is at a fairly good level with a standard index score of 60% to 69%. These results are consistent with findings from previous research (Sari & Siregar, 2021), which examined the performance of mathematics teachers by measuring indicators of material mastery, creativity, use of teaching time, student understanding and classroom mastery. The results show that the average effectiveness of indicators is more than 80% (very good), meaning that each indicator of mastery of material, creativity, use of teaching time, student understanding and good control of classroom conditions will encourage teacher performance to carry out good classroom management so as to encourage high student ability output. Good.

The effectiveness of classroom management has an impact as big as categoriesgood, namely 66.6%on student learning outcomes. It is necessary to re-evaluate other elements that influence the remaining 33.4%. In the mathematics learning results, (pretest) carried out in class VIII6 mathematics less than 18 students have completed or 54% and 15 students have not completed or 45% of the total students have learning outcomes that are classified as very poor in learning mathematics. Meanwhile, in the mathematics learning results (protest) carried out in class VIII4, the mathematics learning results were very good, as many as 29 students had completed or 87% and 7 students had not completed or 19% of all students had learning outcomes that were classified as very poor in mathematics learning. From the description above, the effectiveness of classroom management using the RBL learning model influences mathematics learning outcomes.

Conclusion

Based on the researcher's observations, the teacher managed the class quite well. So it can be said that classroom management using the Resource Based Learning (RBL) learning model can influence mathematics learning outcomes in class V111 of SMPN 2 Rantau Selatan.The results obtained are (1) Class management in mathematics learning is in the good category, namely 66.6%; (2)In mathematics learning results, (pretest) carried out in class VIII6 mathematics less than 18 students have completed or 54% and 15 students who have not completed or 45% of all students have learning outcomes that are classified as very poor in mathematics learning. Meanwhile, in the mathematics learning results (protest) carried out in class VIII4, the mathematics learning results were very good, as many as 29 students had completed or 87% and 7 students had not completed or 19% of all students had learning results that were classified as very poor.(3) The total effectiveness of classroom management using the RBL learning model on a number of students' mathematics learning outcomes25.9%. Thus, there is25.9% of student learning outcomes are influenced by classroom management using the RBL learning model, while other components not counted in this research influence the remaining 74.1%. Based on this, it can be concluded

that classroom management using the RBL learning model can influence the learning outcomes of class VIII 4 students at SMPN 2 Rantau Selatan.

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