The Influence of School Climate And *Self Regulated Learning* Towards Student Engagement in SMA Raksana Medan

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Abstract.
Student engagement in their school includes cognitive, behavioral and emotional dimensions. At Raksana Medan High School, it can be seen that student engagement in learning is still low. This can be seen from the fact that there are still many students who are still holding devices during the learning process, so that the level of focus and self-regulation in learning decreases. This research aims to see the influence of School Climate and Self Regulated Learning on student engagement at Raksana High School Medan. This research method uses quantitative with a sample size of 175 students. The research results show that there is a significant influence on school climate, self-regulated learning with student engagement seen from the coefficient of determination (R2) = 54.9% with a p value = 0.000 < 0.50. This means that the emergence of student engagement is influenced by school climate and self-regulated learning with a contribution of 54.9%.

Keywords: Student Engagement, School Climate and Self Regulated Learning.

I. INTRODUCTION

Students in the learning process will carry out learning activities that lead to the learning process such as asking questions, submitting opinions, doing assignments, being able to answer teacher questions and being able to collaborate with other students, as well as being responsible for the tasks given (Putrayasa, 2013). According to Triono (in Putrayasa, 2013) the most basic thing required in the learning process is student activity, because this will make the learning atmosphere conducive, fresh and students are able to develop their abilities optimally.

Apart from that, in the world of education there are still many problems that never end, such as low achievement, difficulty learning, behavioral and emotional problems, which can lead to dropping out of school. As in the results of previous research which found that most students actually felt bored and isolated at school, some of them even stopped going to school (Larson & Richards, in Miranti, et al., 2021).

The educational problems found at Raksana High School can be viewed as problems of student engagement (disengagement) of students towards their school. Student engagement in their school, which includes cognitive, behavioral and emotional dimensions, can be called student engagement. Fredricks, et al (in Sinulingga 2018) explained that researchers, educators and educational policy makers are currently focusing more on student engagement as the key to overcoming the problems of students with low achievement, boredom and isolation, and high drop out rates.

Apart from school climate, self-regulated learning is also a factor that influences student engagement in learning. Self-regulated learning is an internal factor that includes several factors in previous research. Fasikhah et.al (2013) explained that there are still many students who carry out learning activities without planning, monitoring and controlling, which has an impact on their involvement in the learning process. Good self-regulated learning is also needed so that students continue to achieve good academic achievements. Self-regulated learning is the main concept for understanding students' cognitive, emotional and motivational aspects in learning (Panadero, 2017).

At Raksana Medan High School, it can be seen that student engagement in learning is still low. This can be seen from the fact that there are still many students who are still holding devices during the learning process, so that the level of focus and self-regulation in learning decreases. Apart from that, a subject schedule that is full of extracurricular lessons in one day is also a factor in students' lack of involvement in lessons due to boredom. Even though the school climate is very supportive, it can be seen from being a productive and conducive environment for student learning with an atmosphere that prioritizes student comfort in the teaching and learning process. Based on the phenomenon and description above, researchers are interested and feel it is important to conduct research with the title "The Influence of School Climate and Self-Regulated Learning on Student engagement at Raksana High School Medan".

II. RESEARCH METHODS

The research design used is a quantitative research method. The type of quantitative research used is ex post facto. The main characteristic of ex post facto research is that there is no control over variables. Variables are seen as they are. In this research, researchers did not start the process from the beginning, but immediately took the results.

Student engagement scale (Y)

The student engagement scale is measured using the dimensions proposed by Frederick (in Gabriel Nababan, 2021) which are classified as behavioral engagement, emotional engagement, and cognitive engagement. The scale used in this research has 28 items, with 16 items being favorable statements, and 12 items being unfavorable. Statements on a Likert scale have 2 characteristics, namely favorable (positive supports the statement) and unfavorable (negative does not support the statement). Each statement consists of 4 alternative answers, namely Very Suitable (SS). Suitable (S), Somewhat Suitable (AS), and Not Suitable (TS). The scoring for favorable (supportive) statements is given a score range of 4 to 1, while unfavorable statements are given a score range of 1 to 4.

1. School Climate Scale (X1)

The School Climate Scale is measured using the dimensions proposed by Thapa (in Afifah 2023), namely safety, relationships, teaching and learning, and institutional environment. The School Climate variable is measured using a Likert scale. The scale in this study consisted of 33 question items consisting of 23 favorable statement items and 10 unfavorable statement items. Statements on a Likert scale have 2 characteristics, namely favorable (positive supports the statement) and unfavorable (negative does not support the statement). Each statement consists of 4 alternative answers, namely Very Suitable (SS). Suitable (S), Somewhat Suitable (AS), and Not Suitable (TS). The scoring for favorable (supportive) statements is given a score range of 4 to 1, while unfavorable statements are given a score range of 1 to 4.

2. Self Regulated Learning Scale (X2)

The Self Regulated Learning Scale is measured using Bandura's theory (in Saraswati, 2018) in cognitive, action and behavioral dimensions. The self-regulated learning variable is measured using a Likert scale. Statements on a Likert scale have 2 characteristics, namely favorable (positive supports the statement) and unfavorable (negative does not support the statement). Each statement consists of 4 alternative answers, namely Very Suitable (SS). Suitable (S), Somewhat Suitable (AS), and Not Suitable (TS). The scoring for favorable (supportive) statements is given a score range of 4 to 1, while unfavorable statements are given a score range of 1 to 4.

Data analysis

In this study, researchers used multiple linear regression analysis methods, which were used to test the influence of school climate and self-regulated learning on student engagement at Raksana High

School Medan.

Classical Assumption Test

Before carrying out data analysis, assumptions will first be tested on the research results, namely.

The coefficient of determination essentially measures how much the model's ability is to explain variations in the dependent variable. The value of the determinant coefficient (R2) is between 0 (zero) and 1 (one). An R2 value that is small or close to 0 (zero) means that the ability of the independent variable to explain variations in the dependent variable is very limited. An R2 value that is getting closer to 1 (one) means that the independent variables provide almost all the information needed to predict variations in the dependent variable.

III. RESULT AND DISCUSSION

This research was carried out at the research location, namely SMA Raksana Medan which is located at Jalan Gajah Mada No.20, Medan Baru District, Medan City, North Sumatra Province. The trial was carried out on September 17 2024 with a sample of 43 students from SMA Raksana Medan in the 2024/2025 academic year, spread across classes X-XII. This research uses three measuring instruments consisting of a student engagement scale, school climate, and a self-regulated learning scale.

Based on the results of the trial of the student engagement scale, it shows that of the 28 statement items, there are 27 items that meet the valid (feasible) criteria because they have a corrected item-total correlation (rcount) value > r table (0.301), namely 0.344 to 0.845, and 1 statement item is invalid (failed) because it has a corrected item-total correlation (rcount) value ≤ 0.301, namely 0.172. Furthermore, of the 27 items that were declared valid, the results of the item reliability testing obtained a value of 0.950 so that the 27 valid student engagement scale items were declared reliable and could be trusted to be used as a tool for collecting student engagement data. Distribusi aitem Skala Keterlibatan Siswa setelah Uji Coba.

The results of the School Climate trial, of the 33 statement items, there were 30 statement items that met the valid (feasible) criteria because they had a corrected item-total correlation (rcount) value > r table (0.301), namely 0.337 to 0.762, and 3 statement items were invalid (failed) because they had a corrected item-total correlation (rcount) value ≤ 0.301, namely 0.157 to 0.279. Furthermore, of the 30 items that were declared valid, the results of the item reliability testing obtained a value of 0.934 so that the 30 valid school climate scale items were declared reliable (reliable) and could be trusted to be used as a school climate data collection tool.

The results of the Self Regulated Learning trial, of the 21 statement items, there were 20 statement items that met the valid (feasible) criteria because they had a corrected item-total correlation (rcount) value > r table (0.301), namely 0.321 to 0.724, and 1 statement item was invalid (failed) because it had a corrected item-total correlation (rcount) value ≤ 0.301, namely 0.105. Furthermore, of the 20 items that were declared valid, the results of the item reliability testing obtained a value of 0.878 so that the 20 valid self-regulated learning scale items were declared reliable (reliable) and could be trusted to be used as a self-regulated learning data collection tool.

Table 1. Blue Print Grid *Self Regulated Learning*(X2)

Dimensions	Indicator	Item Number		Total
		Favorable	Unfavorable	
Cognitive	Planning Skills	6.12	-	2
	Ability to evaluate	1,7,13	18	4
Motivation	Desire and persistence completing the task	2,8,14	19	4
	Focus on the goal/target	3,9,15	20	4

Behavior	Able to adapt to the environment	4,10,16	21	4
	Capable control behavior	5,11,17	-	3
Number of Items				21

Table 2. Descriptive Statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
School Climate	175	56	120	87.75	13,092
Self Regulated Learning	175	33	80	60.77	8,562
Student Engagement	175	46	108	84.22	12,476
Valid N (listwise)	175				

Based on the data in the table above, it can be explained that the results of the answers to the school climate scale in (X1) from the 175 students who were the research sample, obtained an average score (mean) of 87.75 with a minimum score of 56 and a maximum score of 120 and a standard deviation of 13,092. The results of the answers to the self-regulated learning scale (X2) from 175 students, obtained an average score (mean) of 60.77 with a minimum score of 33 and a maximum score of 80 and a standard deviation of 8,562. Meanwhile, the results of student engagement answers (Y) from 175 students, obtained an average score (mean) of 84.22 with a minimum score of 46 and a maximum score of 108 and a standard deviation of 12,476.

Table 3. Results of School Climate Linearity Test with Student Involvement

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Student Engagement * School Climate	Between Groups	(Combined)	12138,146	48	252,878	2,132	0,000
		Linearity	4353,557	1	4353,557	36,708	0,000
		Deviation from Linearity	7784,588	47	165,630	1,397	0,074
	Within Groups		14943,603	126	118,600		
	Total		27081,749	174			

The results of the linearity test between the school climate variable and student engagement show that the school climate variable and student engagement have a linear relationship. This is indicated by the linearity coefficient of F = 36,708 with p < 0.05

Table 4. Results of Self-Regulated Learning Linearity Test with Student Involvement

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Student Engagement * School Climate *Self regulated*	Between Groups	(Combined)	8170,180	39	209,492	1,495	0,048
		Linearity	1102,623	1	1102,623	7,871	0,006
		Deviation from Linearity	7067,558	38	185,988	1,328	0,122
	Within Groups		18911,568	135	140,086		

Learning	Total	27081,749	174			

The results of the linearity test between the self-regulated learning variable and student engagement show that the self-regulated learning variable and student engagement have a linear relationship. This is indicated by the linearity coefficient of F = 7.871 with p < 0.05

Partial Test Results (t-test)

In the variable X1 (School Climate), the calculated t value is 12,707 with a probability value (sig). of 0.000. At the significance level or α = 0.05 with the amount of data or samples (n) = 175, from the list of critical values of the t distribution, the t table value is 1.65 and the probability value (sig) is obtained. 0.000 < 0.05, then statistically the first hypothesis is accepted because tcount > ttable, namely 12,707 > 1.65. The results of the analysis showed that the tcount value was positive, so it was concluded that there was a significant positive influence of school climate on student engagement at Raksana Medan High School.

In the variable The results of the analysis also showed that the tcount value was positive, so it was concluded that there was a positive and significant influence of self-regulated learning on student engagement at Raksana High School, Medan.

Simultaneous Test Results (F Test).

The results of the regression analysis show that there is a significant relationship between school climate and self-regulated learning and student involvement, as indicated by the coefficient F = 17.115 with p < 0.05. So statistically the third hypothesis is accepted so it can be concluded that there is a significant influence between school climate and self-regulated learning simultaneously on student engagement at Raksana High School Medan.

Determination Test Results (R2)

The results of the coefficient of determination test (R2) in the table above, obtained an adjusted R Square value or coefficient of determination of 0.549 or 54.9%. The adjusted R Square value is an overview measure that shows how well the sample regression line matches the population data. The adjusted R Square value obtained is close to 1, which means the greater the influence of all independent variables on the dependent variable. Thus, it can be concluded that the contribution or influence of the school climate and self-regulated learning variables simultaneously (together) on the student engagement variable is 54.9%, while the remaining 45.1% is that there are other variables that can give rise to student involvement.

IV. CONCLUSION

1. There is a positive and significant influence of school climate on student engagement at Raksana Medan High School, with a t-calculated value of 12,707 with a probability value (sig). equal to 0.000 < 0.05, so that the higher the school climate, the higher the student involvement, and the lower the school climate, the lower the student involvement.
2. There is a positive and significant influence of self-regulated learning on student engagement at Raksana Medan High School, with a t-count value of 2,594 with a probability value (Sig) of 0.000 < 0.05, so it is assumed that the higher the self-regulated learning, the higher the student involvement, and conversely, the lower the self-regulated learning, the lower the student involvement.
3. There is a significant influence between school climate and self-regulated learning on student engagement at Raksana High School Medan. The higher the school climate and the higher the self-regulated learning, the higher the student involvement, the lower the school climate and the lower the self-regulated learning, the lower the student involvement. The results of the coefficient of determination test show that the contribution of school climate and self-regulated learning to student engagement is 54.9%, while the remaining 45.1% can be explained by other variables outside the model or outside the variables proposed in the research.

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