

The Impact of Learnings Media and Criticals Thinking Ability for the Students Achievement of Social Subject Grade VIII SMP Cinta Rakyat 3 Pematang Siantar Year 2022/2023

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ABSTRACT

This type of research is quantitative research with a quantitative descriptive data analysis approach. The research population was students at the private preparatory vocational school Pematang Siantar with a total of 160 students. The research sample consisted of 115 students. The sampling technique used was random sampling by the researcher according to the class at school. The data collection technique used was a questionnaire. The hypothesis generation technique uses multiple regression analysis and the coefficient of determination (R^2). The research results show that: 1) there is a positive and significant influence of learning media on learning achievement. This result can be seen in the t test where the calculated t value of learning media is $(4.636) > t$ table value (1.65845) which means that this variable is significant. 2) there is a positive and significant influence of critical thinking skills on learning achievement. This result can be seen in the t test where and the calculated t value of critical thinking skills $(2.133) > t$ table (1.65845) which means that this variable is significant. 3) learning media and critical thinking skills together influence learning achievement. This result can be seen in the F test where the Fcount value $(11.735) > F$ table value (3.08) . The R Square coefficient of determination test was found to be 0.1173, which means that 17.3% of the learning media variables and critical thinking skills influence student learning achievement at the Cinta Rakyat 3 Pematang Siantar Private Middle School and the remaining 82.7% is the influence of other variables that are not examined in this research.

INTRODUCTION

Achieving student learning achievement scores determines the success of a particular learning process. Learning achievement is a measure of how well students perform assignments or learning material within a certain period of time and how well they complete them. Student results in mastering material or assignments within a certain period of time are called learning achievements.

From this explanation, the words "achievement" and "learning" consist of one word. The practice of studying the results that one has achieved. Learning is acquiring knowledge or mastering knowledge through experience, remembering, mastering knowledge, and obtaining or finding information. Thus, learning achievement is the result of student learning which includes the knowledge and skills they acquire during school. This achievement is shown by test scores or scores given by the teacher. During the learning process, teaching determines the achievement of educational goals.

There are many factors that can cause student achievement in school to decline, including a lack of learning media for students to study, and students' low critical thinking skills. Things like this can cause student learning achievement at Cinta Rakyat 3 Private Middle School to still be unsatisfactory because there are factors that influence students' low learning achievement, namely due to students' lack of interest in lessons, students' lack of concentration during the learning process, students' low understanding of concepts, School infrastructure is inadequate, making the learning process unsatisfactory. This is because students' enthusiasm for learning is still lacking in facing the teaching and learning process.

Based on the results of observations at Cinta Rakyat 3 Private Middle School Pematang Siantar, where the results of observations made by researchers on the learning achievement of class VIII students at Cinta Rakyat 3 Private Middle School Pematang Siantar show that student learning achievement is still low, so it can be said that student learning achievement class VIII at Cinta Rakyat 3 Private Middle School Pematang Siantar is still not satisfactory. It can be seen from the above student learning results obtained by class VIII students when taking the social studies exam that it is still low or that there are still many students who get scores below the Minimum Completeness Criteria (KKM), where the KKM set by the school for the social sciences subject is 75.

Meanwhile, the social studies teacher hopes that 95% of the 160 students will succeed in achieving a score above the KKM in the Mid-Semester Examination (UTS) in the social studies subject, but in reality, seen from the table above, many students failed the social studies subject exam, whereas students who passed the exam There were only 72 students in social studies or 45% and 88 students or 55% did not complete it. The results of the mid-semester assessment of class VIII students show that their learning outcomes are still low.

The existence of learning media is one of the methods or tools used in teaching and learning process activities. This is done to stimulate learning patterns, support the success of the teaching and learning process, and enable teaching and learning activities to achieve their goals effectively. Learning media makes it easier for teachers to convey the messages contained in learning material and also makes it easier for students to understand the material taught by the teacher.

The ability to think critically, which is one of the soft skills that everyone, including students, must have, is another factor that influences learning achievement. This ability is very important because it has many benefits for life. One of them is solving problems and potentially increasing student understanding. Critical thinking

ability is the ability to think rationally and orderly with the aim of understanding the relationship between concepts or facts. This differs from complex critical thinking skills, which include using processes and assessing information received and solving problems. Critical thinking means carefully analyzing concepts or ideas, distinguishing them, selecting, identifying, studying and developing them better.

Based on the background of this problem, the researcher wants to study further to conduct research with the title " *The Impact of Learnings Media and Criticals Thinking Ability for the Students Achievement of Social Subject Grade VIII SMP Cinta Rakyat 3 Pematang Siantar Year 2022/2023* "

THEORETICAL FRAMEWORK

1. Learning Achievement

Learning achievement is the result of learning achievements or efforts made by students and can be expressed in the form of grades in report cards. In the Big Indonesian Dictionary, learning achievement is the mastery of knowledge and/or skills developed by a subject, usually shown by test scores or grades given by the teacher. According to Winkel and Hamdani (2011: 138) "learning achievement is evidence of a student's success or ability to carry out learning activities in accordance with the weight achieved". Rosyid (2019:9) states that learning achievement is the result of a learning activity accompanied by changes in skills. According to Mulyasa (2017:36) that learning achievement is the result a person obtains after taking learning activities.

2. Instructional Media

Syaiful Bahari Djamarah and Azwan Zain (2020:121) learning media is any tool that can be used as a conveyor of messages so that learning objectives can be achieved, so that learning objectives can be achieved well. Therefore, researchers can conclude that learning media is a tool that used in carrying out the learning process to encourage students to be more active in the ongoing learning process in order to create a teaching and learning process that is very meaningful for students. Learning media is provided naturally by the environment , teachers must be more innovative and careful in utilizing the environment as a learning medium that will take place. In this research , the researcher used learning media as a learning tool that will be used to improve students' critical thinking skills when the teacher conveys messages or learning materials to students so that the learning process can run well.

3. Critical thinking

Critical thinking is the ability to think rationally and orderly which aims to understand the relationship between ideas and facts. The following definition of critical thinking is the ability to solve problems in creating new ideas or thoughts in carrying out the results that will be created. Critical thinking is also defined as thinking to find a problem or look for the truth in solving the problem that will be solved. Critical thinking according to Najla (2016:20) is being able to help students make conclusions by considering data and facts in the field so it can be concluded that critical thinking ability is knowing how to use information to solve a problem and being able to find out how to solve a problem from relevant information. .

METHODS

The type of research carried out is descriptive quantitative research. In general, research methods are defined as scientific ways to obtain data with specific purposes and uses. Data obtained from research can be used to understand, solve, and anticipate a problem. In conducting this research, the author used ex-post facto research methods. Ex-post facto research is research that aims to find causes that allow changes in behavior, symptoms or phenomena caused by an event, behavior or things that cause changes in the independent variables that have already occurred as a whole. quantitative/statistical nature, with the aim of testing the hypothesis that has been applied.

Based on the researcher's title " The Impact of Learnings Media and Criticals Thinking Ability for the Students Achievement of Social Subject Grade VIII SMP Cinta Rakyat 3 Pematang Siantar Year 2022/2023." The location of this research was carried out at Cinta Rakyat 3 Pematangsiantar Private Middle School, precisely on Jl. Batik, Bane, District. North Siantar, Pematang Siantar City, North Sumatra. This research was carried out on class VIII students for the 2022/2023 academic year. This research will be carried out from May to October 2023 at Cinta Rakyat 3 Pematangsiantar Private Middle School Academic Year 2022/2023. The population in this study was class VIII A, VIII B, VIII C, VIII D, VIII E with a total of 160 students, so the total population used in this study was 160 people. The sample that will be used in the research is using the Slovin formula and using simple random sampling, namely class VIII A with 23 students, VIII B with 23 students, VIII C with 23 students, VIII D with 23 students, and VIII E with 23 students. So the total number of samples used was 115 students

RESULTS & DISCUSSION

Results

Research Instrument Trial Results

Instrument Validity Test

The validity test in this study used SPSS version 22 and Ms. Excel 2007. The level used to test the validity of the instrument is 0.05 %. Based on the results of the validity test, 31 students were tested with a total of 20 questions.

The statement item is declared valid if the value of $r_{count} \geq r_{table}$ with a significance level of $\alpha = 0.05$. From the results of the validity test, it can be seen that the correlation between each question item and the total score of $n = 31$ shows that the r table is 0.355. This means that if the correlation value is more than 0.355 then the question is considered invalid.

Table 1 Validity of Learning Media Questionnaire Items

X1 Validity Test				
Question Items	r _{calculate with XL}	r _{calculate with SPSS}	r _{table}	Decision
1	0.492648871	0.493	0.355	VALID
2	0.48468806	0.485	0.355	VALID
3	0.515281548	0.515	0.355	VALID
4	0.687956945	0.688	0.355	VALID
5	0.491695855	0.492	0.355	VALID
6	0.363024797	0.363	0.355	VALID
7	0.367688538	0.368	0.355	VALID

8	0.08415724	0.084	0.355	INVALID
9	-0.26437528	-0.264	0.355	INVALID
10	-0.11285162	-0.113	0.355	INVALID
11	0.382063287	0.382	0.355	VALID
12	0.481644031	0.482	0.355	VALID
13	0.527261824	0.527	0.355	VALID
14	0.529244963	0.529	0.355	VALID
15	0.407314296	0.407	0.355	VALID
16	0.43618537	0.43	0.355	VALID
17	0.379841791	0.38	0.355	VALID
18	0.386159591	0.386	0.355	VALID
19	0.39030667	0.39	0.355	VALID
20	0.402102893	0.402	0.355	VALID

Based on the table above, it can be seen that there are 2 statements <0.355 , so the data is considered invalid.

Table 2 Validity of Critical Thinking Ability Questionnaire Items

X2 Validity Test				
Question Items	rcalculate with XL	rcalculate with SPSS	rtable	Decision
1	0.623691938	0.624	0.355	VALID
2	0.442381295	0.442	0.355	VALID
3	0.41947971	0.411	0.355	VALID
4	-0.260253612	-0.26	0.355	INVALID
5	0.380418736	0.38	0.355	VALID
6	0.579353654	0.579	0.355	VALID
7	0,545741882	0,546	0.355	VALID
8	0,471255036	0,471	0.355	VALID
9	0,484522501	0,485	0.355	VALID
10	0,423809284	0,424	0.355	VALID
11	0,059652458	0,06	0.355	TIDAK VALID
12	0,479173524	0,479	0.355	VALID
13	-0,035145526	-0,035	0.355	TIDAK VALID
14	0,41868349	0,419	0.355	VALID
15	0,492932033	0,493	0.355	VALID
16	0,370283778	0,376	0.355	VALID
17	0,355518507	0,356	0.355	VALID
18	0,676528211	0,677	0.355	VALID
19	0,67288868	0,673	0.355	VALID
20	0.498962522	0.499	0.355	VALID

Based on the table above, it can be seen that there are 3 statements < 0.355 , so the data is considered invalid.

Table 3 Validity of Learning Achievement Questionnaire Items

Y Validity Test				
Question Items	rcalculate with XL	rcalculate with SPSS	rtable	Decision
1	0.407336993	0.407	0.355	VALID
2	0.483765329	0.484	0.355	VALID
3	0.464520488	0.465	0.355	VALID
4	0.515688796	0.516	0.355	VALID
5	0.07864699	0.079	0.355	INVALID
6	0.410460035	0.41	0.355	VALID
7	0.38833863	0.388	0.355	VALID
8	-0.081382391	-0.081	0.355	INVALID
9	0.091606882	0.092	0.355	TIDAK VALID
10	0.361193178	0.361	0.355	VALID
11	0.404468915	0.404	0.355	VALID
12	0.376660431	0.377	0.355	VALID
13	0.584284647	0.584	0.355	VALID
14	0.648618635	0.649	0.355	VALID
15	0.551323292	0.551	0.355	VALID
16	0.491903272	0.492	0.355	VALID
17	0.437520269	0.438	0.355	VALID
18	0.495553619	0.496	0.355	VALID
19	0.30902217	0.431	0.355	VALID
20	0.42108325	0.421	0.355	VALID

Based on the table above, it can be seen that there are 3 statements < 0.355 , so the data is considered invalid.

Instrument Reliability Test

For the questionnaire reliability criteria, if $r_{count} > r_{table}$ with a significant level ($\alpha = 0.05$) then the questionnaire is said to be reliable. However, if $r_{count} \leq r_{table}$ then the questionnaire is considered to have no reliability. If the *Cronbach Alpha value* is > 0.60 it is said to be reliable, but if the *Cronbach Alpha value* is < 0.60 it is said to be unreliable.

From the data obtained, it is known that the *Cronbach Alpha* obtained was $0.739 > 0.60$. From the results of calculating the reliability of learning media, it can be concluded that the research instruments used are reliable.

From the data obtained, it is known that the *Cronbach Alpha* obtained was $0.803 > 0.60$. From the results of calculating the reliability of critical thinking skills, it can be concluded that the research instruments used are reliable.

From the data obtained, it is known that the *Cronbach Alpha* obtained was $0.703 > 0.60$. From the results of calculating the reliability of Learning Achievement, it can be concluded that the research instruments used are reliable.

Data Normality Test

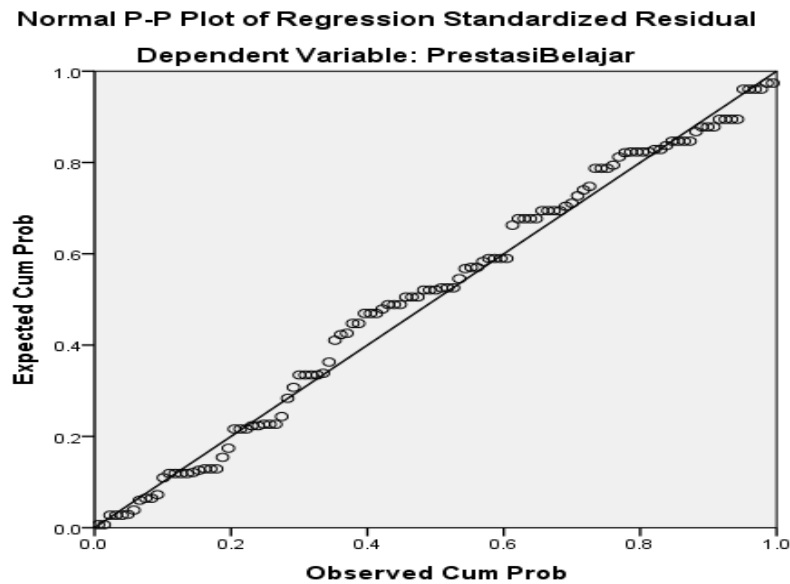


Figure 1. Normal Probability P-Plot Curve

Based on the test results of the p-plot graph, it shows the conclusion that the data is spread around the diagonal line, so the data is declared normal. This can be seen in figure 1 above.

Multicollinearity Test

Table 5 Multicollinearity Test Results

Coefficients ^a							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	20,190	9,547		2,115	,037		
Instructional Media	,420	,090	,409	4,636	,000	,949	1,053
Critical Thinking Ability	,207	,086	,213	2,414	.017	,949	1,053

a. Dependent Variable: Learning Achievement

The assumption of Tolerance and Variance Inflation Factor (VIF) can be stated that if $VIF > 10$ and Tolerance value < 0.10 then multicollinearity occurs, and if $VIF < 10$ and Tolerance value > 0.10 then multicollinearity does not occur. Based on table 5, Tolerance > 0.10 and Variance Inflation Factor (VIF) < 10 , it can be concluded that there are no symptoms of multicollinearity in the data.

Heteroscedasticity Test

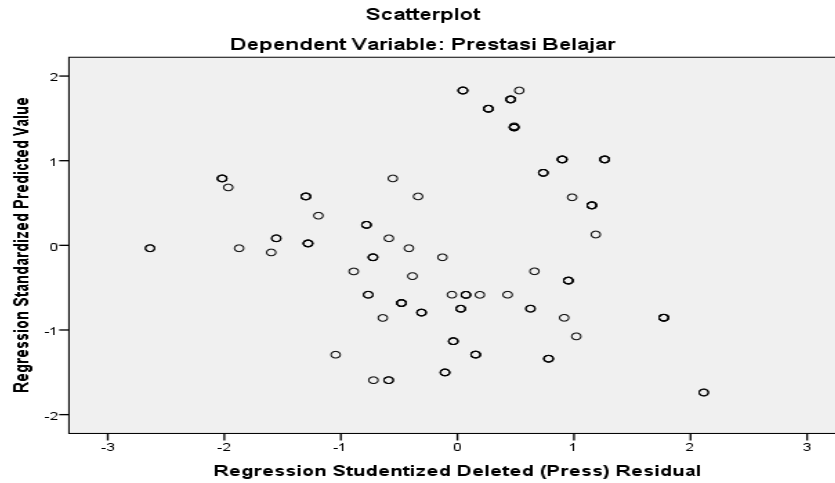


Figure 2 Scatterplot curve

Based on Figure 2, it can be seen that the points are spread above and below the number 0 on the Y axis. Thus it can be concluded that heteroscedasticity does not occur.

Table 6 Heteroscedasticity Test Results Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	4,176	5,673		,736	,463
INSTRUCTIONAL MEDIA	,009	,054	.017	,172	,864
CRITICAL THINKING ABILITY	,025	,051	,048	,492	,624

a. Dependent Variable: ABS_RES

Based on table 4.8, it is known that the significant value of learning media (0.864) and the significant value of critical thinking skills (0.624) can be concluded that there are no symptoms of heteroscedasticity because the significance value must be greater than 0.05.

Multiple Regression Analysis Test

The purpose of the multiple regression analysis test is to determine the direction and how much influence the independent variable has on the dependent variable.

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_n X_n + e$$

Next, the influence of the independent variable on the dependent variable is tested with a confidence interval of 95% or $\alpha = 5\%$.

**Table 7 Multiple Regression Analysis Test Results
Coefficients^a**

Model	Unstandardized Coefficients		Standardized Coefficients	Q	Sig.
	B	Std. Error	Beta		
1 (Constant)	20,190	9,547		2,115	,037
INSTRUCTIONAL MEDIA	,420	,090	,409	4,636	,000
CRITICAL THINKING ABILITY	,207	,086	,213	2,414	.017

a. Dependent Variable: LEARNING ACHIEVEMENT

Based on table 4.10, it is known that the value of constant (a) is 20.190, while the value of Learning Media (b1) is 0.420 and the value of Critical Thinking Ability (2) is 0.207, so the regression equation is:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_n X_n + e$$

$$= 20,190 + 0.420X_1 + 0.207 X_2 + 9.547$$

- i. A constant of 20.190 means that the consistent value of the learning achievement variable is 20.190.
- ii. The regression coefficient X1 is 0.420 and X2 is 0.207. The regression coefficient is positive, so it can be said that the direction of influence of variables X1 and Variable X2 on Y is positive.

t test

The partial test (t) is used to determine whether the hypothesis used is accepted or rejected, with a confidence level of 95% or $\alpha=5\%$, with the following conditions :

1. If $t_{count} > t_{table}$, then the independent variable has an effect on the dependent variable.
2. If $t_{count} < t_{table}$, then the independent variable has no effect on the dependent variable.

Table 8 t test results
Coefficients ^a

Model	Unstandardized Coefficients		Standardized Coefficients	Q	Sig.
	B	Std. Error	Beta		
1 (Constant)	20,190	9,547		2,115	,037
INSTRUCTIONAL MEDIA	,420	,090	,409	4,636	,000
CRITICAL THINKING ABILITY	,207	,086	,213	2,414	.017

a. Dependent Variable: LEARNING ACHIEVEMENT

Based on table 8, the tcount value from Learning Media (4.636) is greater than ttable (1.65845) and the tcount value from Critical Thinking Ability (2.133) is greater than ttable (1.65845). Thus, the independent variable has a significant effect on the dependent variable.

F test

The F test is carried out to find out whether the independent variables together have an influence on the dependent variable. In this case, Fcount is compared with Ftable with the following conditions :

1. If $F_{count} > F_{table}$, then H_0 is rejected and H_1 is accepted
2. If $F_{count} < F_{table}$, then H_1 is rejected and H_0 is rejected.

Table 9 F Test Results

ANOVA ^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1664.085	2	832,042	11,735	,000 ^b
Residual	7940.837	112	70,900		
Total	9604.922	114			

a. Dependent Variable: LEARNING ACHIEVEMENT

b. Predictors: (Constant), CRITICAL THINKING ABILITY, LEARNING MEDIA

Based on table 9, it is found that the Fcount value (11.735) is greater than the Ftable value (3.08) . This indicates that the research results reject H_0 and accept H_1 . Thus, simultaneously the learning media and students' critical thinking skills influence the student learning achievement variable at the Cinta Rakyat 3 Pematang Siantar Private Middle School with a significant level of influence. This gives meaning to the hypothesis which states that learning media and students' critical thinking skills

simultaneously influence student learning achievement variables at the Cinta Rakyat 3 Pematang Siantar Private Middle School can be accepted.

Coefficient of Determination Test

Table 10 Coefficient of Determination Test Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.416 ^a	.173	.158	8,420

a. Predictors: (Constant), CRITICAL THINKING ABILITY, LEARNING MEDIA

The R Square coefficient of determination value in table 4.13 is known to be 0.173. Which means that 17.3% of the Learning Media and Critical Thinking Ability variables influence student learning achievement at the Cinta Rakyat 3 Pematang Siantar Private Middle School. Meanwhile, 82.7% is the influence of other variables not examined in this research.

The results of the analysis above have the implication that high learning media and good critical thinking skills need to be considered in order to improve student learning achievement at the Cinta Rakyat 3 Pematang Siantar Private Middle School. This is important to increase the contribution of learning media variables and critical thinking skills by 17.3%.

Discussion

The results of the classical assumption test, the above normality test are the main requirements to be able to proceed to the multiple regression analysis test with the data having a normal distribution and a significance level of > 0.05 . In the learning media variable, critical thinking skills and student learning achievement have a normal distribution between variables with a significance level of $0.200 > 0.05$, and based on Figure 4.2 the normal p-plot curve can be seen that the distribution of data is around the diagonal line and follows the diagonal direction, then the values are standardized and meet the normality assumption.

The results of the multicollinearity test show that Tolerance > 0.10 and Variance Inflation Factor (VIF) < 10 , based on table 4.7 it is known that the Variance Inflation Factor (VIF) value is $1.053 < 10$ and the Tolerance value is $0.949 > 0.10$, so it can be concluded that the data does not have symptoms of multicollinearity.

The results of the heteroscedasticity test based on figure 4.2 show that the dots are spread above and below the number 0 on the Y axis. Thus it can be concluded that there is no heteroscedasticity, and based on table 4.8 it is known that the significant value of learning media is (0.864) and the significant value of thinking ability critical (0.624) it can be concluded that there are no symptoms of heteroscedasticity because the significance value must be greater than 0.05.

Based on table 4.9, it is known that the value of constant (α) is 20.190, while the value of learning media (β_1) is 0.420 and the value of critical thinking skills (β_2) is 0.207, so the regression equation is:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_n X_n + e$$
$$= 20.190 + 0.420X_1 + 0.207X_2 + 9.547$$

1. A constant of 20.190 means that the consistent value of the learning achievement variable is 20.190. The regression coefficient X_1 is 0.420 and X_2 is 0.207. The regression coefficient is positive, so it can be said that the direction of influence of variables X_1 and Variable X_2 on Y is positive.

The results of the t test are based on table 4.10. The calculated t value of the learning media (4.636) is greater than the t table (1.65845). Based on the results obtained, H_0 is rejected and H_1 is accepted for the learning media variable. Thus, learning media partially influences learning achievement at the Cinta Rakyat 3 Pematang Siantar Private Middle School. and the calculated t value of critical thinking skills (2.133) is greater than the t table (1.65845). Based on the results obtained, H_0 is rejected and H_1 is accepted for the critical thinking ability variable. Thus, partially interest in learning influences learning achievement at the Cinta Rakyat3 Private Middle School, Pematang Siantar.

Partially, the learning media variable has a more dominant influence than critical thinking skills. This can be seen from table 4.10 where the learning media value has the highest value, namely 4.363. This means that the learning media variable has more influence in improving learning achievement at the Cinta Rakyat 3 Pematang Siantar Private Middle School than critical thinking skills.

The F test results based on table 4.11 show that the Fcount value (11.735) is greater than the Ftable value (3.08) . This indicates that the research results reject H_0 and accept H_1 . Thus, simultaneously the learning media and students' critical thinking skills influence the student learning achievement variable at the Cinta Rakyat 3 Pematang Siantar Private Middle School with a significant level of influence.

The R Square coefficient of determination value in table 4.13 is known to be 0.173. Which means that 17.3% of the Learning Media and Critical Thinking Ability variables influence student learning achievement at the Cinta Rakyat 3 Pematang Siantar Private Middle School. Meanwhile , 82.7 % is the influence of other variables not examined in this research.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the research and discussion described in the previous chapter, the following conclusions can be drawn :

1. There is a positive and significant influence of learning media on learning achievement. This result can be seen in the t test where the calculated t value of learning discipline (2.492) > t table value (1.65845) which means this variable is significant.
2. There is a positive and significant influence of critical thinking skills on learning achievement. This result can be seen in the t test where and the calculated t value of learning interest (4.082) > t table (1.5845) which means this variable is significant.
3. Learning media and critical thinking skills together influence learning achievement. This result can be seen in the F test where the Fcount value (20.669) > Ftable value (3.08) . The R Square coefficient of determination test was found

to be 0.164, which means that 16.4% of the variables of learning discipline and interest in learning influence student achievement at the Pematang Siantar Preparatory Private Vocational School and the remaining 84.6% is the influence of other variables not examined in this research. .

FURTHER STUDY

For future researchers to use other variables that influence student learning achievement. If in the future someone does similar research, they should do it in a different place, add the research variables and adjust the time to the period of the research being carried out.

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The author realizes that in writing this thesis, there are still many shortcomings. For this reason, with all humility the author hopes for suggestions and constructive criticism for the perfection of writing this thesis research proposal in the future so that it can provide direction to the author in the next steps of writing.

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