

THE EFFECT OF ACADEMIC PROCRASTINATION AND STUDENT CREATIVITY ON THE OUTCOMES OF STUDENTS 'MATHEMATICS LEARNING CLASS VIII IN SMP NEGERI 13 PEKALONGAN

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ABSTRACT

This study aims to analyze the effect of academic procrastination and student creativity on mathematics learning outcomes of grade VIII junior high school students at SMP Negeri 13 Pekalongan. The type of research used is ex post de facto research. This type of quantitative research is used by applying instruments such as questionnaires and documentation. The independent variables used were academic procrastination and student creativity. While the dependent variable used is mathematics learning outcomes. This study used 42 samples from 188 populations. This group represents students' opinions about academic procrastination and students' creativity that they usually do when learning mathematics. Multiple regression analysis method is used to get the expected results. This method was analyzed with the help of SPSS version 22.0. The results of the study found that the t-count value of academic procrastination and mathematics learning outcomes was -1.245 smaller than the t table of 2.021. From these results it can be concluded that there is no effect of academic procrastination on mathematics learning outcomes. Then, the results of the study found that the t-count value on student creativity and mathematics learning outcomes was 0.127 smaller than t-table 2.021, so it was concluded that there was no influence between student creativity and mathematics learning outcomes. For statistical values simultaneously generate values From these results it can be concluded that there is no effect of academic procrastination on mathematics learning outcomes. Then, the results of the study found that the t-count value on student creativity and mathematics learning outcomes was 0.127 smaller than t-table 2.021, so it was concluded that there was no influence between student creativity and mathematics learning outcomes. For statistical values simultaneously generate values From these results it can be concluded that there is no effect of academic procrastination on mathematics learning outcomes. Then, the results of the study found that the t-count value on student creativity and mathematics learning outcomes was 0.127 smaller than t-table 2.021, so it was concluded that there was no influence between student creativity and mathematics learning outcomes. For statistical values simultaneously generate values Fcount amounted to 0.927, which is smaller than Ftable amounted to 3.24. Thus, the results indicated that there was no effect of academic procrastination and student creativity on mathematics learning outcomes of grade VIII students at SMP Negeri 13 Pekalongan.

Keywords: Academic Procrastination, Student Creativity, Mathematics Learning Outcomes

INTRODUCTION

In Law Number 20 of 2003 concerning the national education system it is said, "education is a conscious and planned effort to create an atmosphere of learning and the learning process so that students actively

develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble morals and skills necessary for himself, society, nation and state (DM, 2003). To realize education, we need a measuring tool for the success of the

learning process. This measure of success is generally indicated by student learning outcomes with good grades. Learning outcomes are performance that is carried out as an ability that someone has acquired. Whether the value of a learning outcome is high or not can be shown from the acquisition of test scores that have been achieved by students, namely by giving a score to the student's ability while learning (Supriyningrum, 2016).

In learning mathematics, student learning outcomes in Indonesia still get low results. This is stated from the results of the 2015 TIMSS survey that Indonesia is in the 44th position out of 49 countries (Hadi, 2019). To achieve success in mathematics learning can be measured by various factors that affect student learning outcomes (Zuraidah, 2020). There are two factors of this, namely factors within students (internal) and factors outside students (external). Academic procrastination and student creativity are two internal factors that can support and or hinder student success which is reflected in mathematics learning outcomes.

Delay in working on a task is known as procrastination. Procrastination is a problem where students find it difficult to do assignments according to the time limit, are often late in doing assignments and overly prepare assignments (Risnawati, 2014). Academically procrastination can be expressed as behavior that is inefficient and ineffective against time and tends not to start completing school assignments. This is in line with the interview with the Class VIII Mathematics Teacher of SMP Negeri 13 Pekalongan which stated that delays in doing assignments that occur for each student could be caused by students who cannot do math problems or students who are lazy to read books. If you always postpone completing automatic assignments when you get new assignments, students start to get overwhelmed so that students will collect

assignments at the end of time with the results as they are (Karim, 2020).

The same is the case with students' creativity in dealing with the mathematics learning process. A creative person can look at problems from various points of view. With various points of view, it is possible for someone to have several alternative solutions to solve the problem (Mahmudi, 2008). Munandar, as quoted by Susilo Rahardjo, defines creativity as the ability to create new things, the ability to convey new ideas in problem solving and the ability to draw conclusions between things that have already existed before (Zamroni, 2019).

In line with this, the results of the interview with the Grade 8 Mathematics Teacher at SMP Negeri 13 Pekalongan gave the opinion that creative students will produce good math scores. Creative students will like to ask anyone about assignments that have not been understood. Creative students can also solve math problems in various ways, for example learning independently by reading or seeing how to solve problems on YouTube as a learning medium during learning like today (Karim, 2020). This can maximize students' mathematical abilities by developing student creativity with the help of teachers, parents or friends so that students can find difficult mathematics to be fun to learn. If students enjoy learning mathematics, it means that students can get better mathematics learning outcomes than before. This student creativity can reflect someone who has divergent thinking, namely the ability to solve problems with various answers (Budiarti, 2016).

Based on the description of the background, the researcher identified a research problem, namely that the delay in doing assignments experienced by students could affect mathematics learning outcomes. That way, creative thinking can be done as an effort to solve problems related to tasks. As for the formulation of the research problems include (1) Does academic

procrastination affect the mathematics learning outcomes of grade VIII students at SMP Negeri 13 Pekalongan? (2) Does student creativity affect the mathematics learning outcomes of grade VIII students at SMP Negeri 13 Pekalongan? (3) Does academic procrastination and student creativity affect the mathematics learning outcomes of grade VIII students at SMP Negeri 13 Pekalongan?

RESEARCH METHODS

This research approach uses quantitative, which is a research method that examines certain samples where data collection uses research instruments, statistical data analysis and has the aim to test a hypothesis. (Sugiyono, 2014). Research is an ex-post facto type of research, which is a study in which the researcher deals with the variables that have occurred and the researcher does not need to treat the variables that have been studied, but only reveals the facts of the respondent's answer.(Wilda).

The research variable consisted of two independent variables, namely academic procrastination (X1) and student creativity (X2). While the dependent variable is mathematics learning outcomes. To see this research framework model as follows.

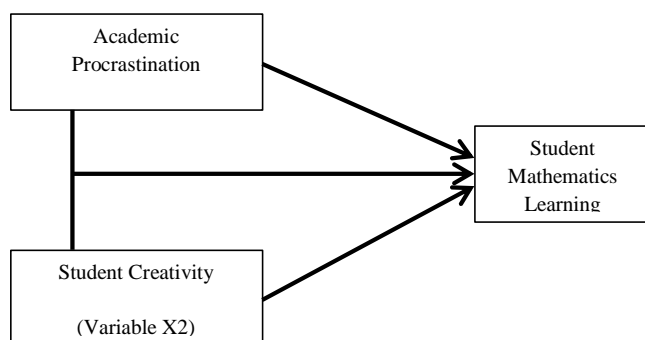


Figure 1. Research Framework

The population of this study were all 8th grade students at SMP Negeri 13 Pekalongan. With a sample of 42 students based on the rules of Gay and Diehl, namely

a minimum sample of 30 subjects ($n > 30$). The sampling technique used in this research was the proportional stratification random sampling technique, namely taking the sample from a population whose members were not homogeneous and with proportional stratification.(Sugiyono, 2014, p. 120). This technique is used to provide equal opportunities to each class.

The instruments and data collection techniques of this study were assisted by a questionnaire, namely data collection by providing a set of written statements to the respondents(Sugiyono, Quantitative Research Methods, Qualitative, and R & D, 2014). The research questionnaire was in the form of a Likert scale with five alternative answer choices in the form of (5) Very Often (4) Often (3) Sometimes (2) Rare and (1) Never. Each questionnaire contains 25 closed questions that will be given to respondents.

The indicators used in the academic procrastination questionnaire are the characteristics of procrastination according to Ferrari, namely (1) Delay in starting or completing tasks, (2) Delay in doing a task, (3) Time gap or a gap between plans and actual performance, and (4) Doing other activities that are more fun. Then, the indicators used in the student creativity questionnaire use aspects of creativity according to Guilford, namely (1) fluency in thinking, (2) flexibility in thinking, (3) authenticity of thinking, and (4) elaboration. Furthermore, the dependent variable in this study is the mathematics learning outcome obtained from the odd 2020/2021 Final Semester Assessment (PAS) score in mathematics subjects.

FINDINGS AND DISCUSSION

Descriptive Statistics

The data regarding academic procrastination are presented as follows.

Category	Score
Mean	62.55
Median	58.50
Std. Deviation	22,099
Variance	488,351
Range	86
Minimum	25
Maximum	111

Table 1. Descriptive of Procrastination Data Academic

It can be observed in the table that academic procrastination is low because the mean and median values are far from the maximum value. Furthermore, the academic procrastination variable with a sample of 42 students had the highest score of 111, the lowest score of 25, the range value of 86, the mean or average value of 62.55, with a standard deviation of 2.099 and a variance value of 488.351.

Data regarding student creativity is shown as follows.

Category	Score
Mean	80.38
Median	78.50
Std. Deviation	12,500
Variance	156,242
Range	55
Minimum	52
Maximum	107

Table 2. Descriptive Student Creativity Data

It can be observed in the table that students' creativity is high because the mean

and median values are close to the maximum value. Furthermore, the student creativity variable with a sample of 42 students had the highest score of 107, the lowest score of 52, the range value of 55, the mean or average value of 80.38, with a standard deviation of 12.5 and a variance value of 156.242.

Data regarding mathematics learning outcomes is presented as follows.

Category	Score
Mean	70.86
Median	68.00
Std. Deviation	13,436
Variance	180,516
Range	56
Minimum	40
Maximum	96

Table 3. Descriptive Mathematics Learning Outcomes

It can be seen in the table that the PAS math score is moderate because the mean and median values are somewhat close to the maximum value. Furthermore, the student learning outcomes variable with a sample of 42 students had the highest score of 96, the lowest score of 40, the value range of 56, the mean or average value of 70.86, with a standard deviation of 13.436 and a variance value of 180.516.

Inferential Statistics

Before testing the hypothesis, the data were tested with classical assumptions including normality test, multicollinearity test, heteroscedasticity test and autocorrelation test. The results of the normality test are as follows.

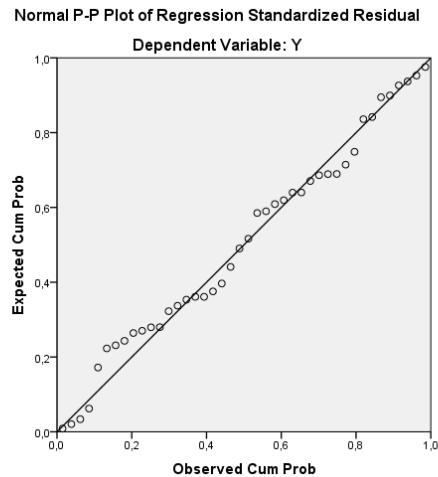


Figure 1. Data Normality

From the picture above, it can be seen that the data distribution values are represented around the straight line and not scattered away from the straight line. It can be said that the normality test is fulfilled.

The results of the multicollinearity test are as follows.

Model	Collinearity Statistics	
	Tolerance	VIF
X1	0.899	1,113
X2	0.899	1,113

Table 4. Data Multicollinearity

It can be seen in the table above that the tolerance value is 0.899 and the VIF value is 1.113, this means that the regression model is multi-risk free. This means that it passes the multicollinearity test. Furthermore, the results of the heteroscedicity test are as follows.

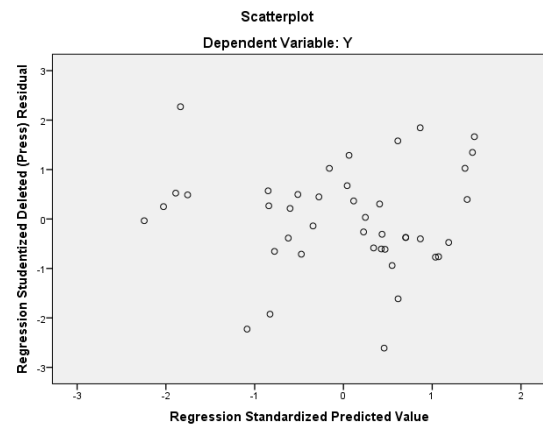


Figure 2. Data Heteroscedasticity

It can be seen that the pattern above does not form any pattern and the dots are spreading so that there is no heteroscedasticity. The last classic assumption test is the autocorrelation test as follows.

R	R Square	Adjusted R Square	Durbin-Watson
,213a	,045	-,004	1,626

Table 5. Data Autocorrelation

It can be seen that the data above the Durbin-Watson value is 1.626.

$$1,6061 < 1,626 < 4 - 1,6061$$

$$1,601 < 1,626 < 2,3939$$

where the data is between 1.6061 to 2.33939 means that the data meets autocorrelation.

Next, test the data hypothesis as follows.

R	R Square	Adjusted R Square	Std. Error of the Estimate
,213a	,045	-,004	13,459

Sum of Squares	Df	Mean Square	F	Sig.
336,018	2	168,009	,927	,404

7065,125	39	181,157		
7401,143	41			

Unstandardized Coefficients		Standard ized Coefficients	T	Sig.
B	Std. Error	Beta		
76,229	17,123		4,452	,000
-,128	,103	-,205	-1,245	,220
,023	,177	,021	,127	,900

Table 6. Data Multiple Linear Regression

1) The Effect of Academic Procastination (X1) on Students' Mathematics Learning Outcomes (Y)

Based on table 6. found and the level of value, so it can be concluded that nilai $t_{hitung} = -1,245 < t_{tabel} = 2,021$ Sig. = 0,22 > 0,05 H_0 accepted and H_a were rejected, that is there is no significant effect between academic procrastination on student mathematics learning outcomes. The occurrence of this is due to other factors that affect student learning outcomes. If students submit assignments late, but students understand the material, students may get good grades.

In line with this, Mahmud Arif explained that an important factor of learning is readiness to learn (Arif, 2019). The more students prepare for learning as well as possible, the students will get better results. So that the delay in collecting assignments is not very influential when it turns out that a student is ready. Furthermore, the results of these studies indicate a negative effect on academic procrastination on student mathematics learning outcomes. This suggests that academic procrastination is

really a negative attitude that should be avoided.

2) The Effect of Student Creativity (X2) on Student Mathematics Learning Outcomes (Y)

Based on table 6. found and the level of value, so it can be concluded that nilai $t_{hitung} = 0,127 < t_{tabel} =$

2,021 Sig. = 0,9 > 0,05 H_0 accepted and H_a rejected, that is There is no significant influence between student creativity on student mathematics learning outcomes.

This can happen because creativity is not the only factor that affects learning outcomes. In line with this, according to Naylor, as quoted by Dindin, he explained that student learning outcomes are closely related to the level of intelligence in the cognitive field. Gloyer's research as quoted by Dindin states that creativity does not have a significant relationship with intelligence (Komarudin, 2011). This means, students with a high level of intelligence will more easily accept and understand subject matter, especially mathematics subject matter which really requires understanding concepts. Moreover, it is known that creativity and learning outcomes do not have a significant level of correlation, so the effect is low. However, the results of this study show a positive effect, meaning that if creativity is sharpened continuously, students will understand more about mathematics material and of course produce mathematics learning outcomes with better grades.

3) The Effect of Academic Procastination (X1) and Student Creativity (X2) on Student Mathematics Learning Outcomes (Y)

Based on table 6. found values and value levels, so it can be concluded that the hypothesis $F_{hitung} = 0,927 < F_{tabel} = 3,24$ Sig. 0,000 < 0,404 H_0 accepted and H_a rejected, that is There is no significant

effect between academic procrastination and student creativity on student mathematics learning outcomes. This is because there are other factors that support mathematics learning outcomes. Academic procrastination factors and student creativity only affect mathematics learning outcomes by 45%.

HEADINGS AND SUB HEADINGS FOR CONCEPTUALLY-BASED PAPER

Between theory and research, it is found that academic procrastination and creativity are indeed factors that can affect mathematics learning outcomes. But it cannot be denied that there are other factors so that academic procrastination and creativity are not benchmarks that can influence it.

CONCLUSION

From the results of the research and discussion that has been described, several conclusions can be drawn, including:

1. Academic procrastination has a negative and insignificant effect on the mathematics learning outcomes of grade VIII students at SMP Negeri 13 Pekalongan. It can be said that if the academic procrastination decreases, the mathematics learning outcomes will be better.
2. Student creativity produces a positive and insignificant effect on the mathematics learning outcomes of grade VIII students at SMP Negeri 13 Pekalongan. This means that if students' creativity is sharpened continuously and increasingly, the results of learning mathematics can also be high.
3. Together, academic procrastination and student creativity do not have a significant effect on the mathematics learning outcomes of grade VIII students at SMP Negeri 13 Pekalongan. This means that if academic procrastination is high and student creativity is low, it does not mean that mathematics learning outcomes will

decrease. Likewise, if the lower the academic procrastination and the higher the student's creativity, the learning outcomes are not necessarily high. The two are not related to each other so that in improving students' mathematics learning outcomes, readiness and persistence in learning and other supporting factors are still needed.

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