

Learning Motivation and Academic Procrastination with Mathematics Learning Outcomes

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ABSTRAK

Motivasi belajar siswa masih rendah menyebabkan siswa tidak bersemangat dalam pembelajaran. Penelitian ini bertujuan untuk menganalisis pengaruh motivasi belajar dan prokrastinasi akademik dengan hasil belajar matematika siswa kelas VI SD. Jenis penelitian ini merupakan penelitian *ex post facto* yang bersifat korelasional. Populasi dari penelitian ini adalah seluruh siswa kelas VI SD yang berjumlah 106 siswa. Sampel penelitian ini berjumlah 86 siswa yang ditentukan dengan menggunakan teknik *proporsional random sampling*. Metode pengumpulan data yang digunakan dalam penelitian ini menggunakan metode non tes. Metode pengumpulan data menggunakan pencatatan dokumen, kuesioner, dan tes. Data dianalisis dengan menggunakan teknik analisis regresi linier sederhana dan teknik analisis regresi linier berganda. Hasil dari analisis regresi linier sederhana untuk pengujian hipotesis I dan II diperoleh hasil terdapat pengaruh yang signifikan motivasi belajar dengan hasil belajar matematika siswa kelas VI SD dengan kontribusi sebesar 10,5% dan terdapat pengaruh yang signifikan prokrastinasi akademik dengan hasil belajar matematika siswa kelas VI SD dengan kontribusi sebesar 53,0%. Hasil analisis regresi linier berganda diperoleh terdapat pengaruh yang signifikan motivasi belajar dan prokrastinasi akademik dengan hasil belajar matematika siswa kelas VI SD dengan kontribusi sebesar 11,0%. Berdasarkan hasil penelitian dapat disimpulkan bahwa terdapat pengaruh yang signifikan motivasi belajar dan prokrastinasi akademik dengan hasil belajar matematika siswa kelas VI SD.

ABSTRACT

Students' motivation still needs to improve, causing students not to be enthusiastic about learning. This study aims to analyze the effect of learning motivation and academic procrastination on the results of learning mathematics for sixth-grade elementary school students. This type of research is correlational *ex post facto* research. The population of this study was all 106 students of class VI SD. The sample of this research was 86 students who were determined using a proportional random sampling technique. The data collection method used in this study uses the non-test method. Power collection methods using document recording, questionnaires, and tests. Data were analyzed using simple linear regression analysis techniques and multiple linear regression analysis techniques. The simple linear regression analysis results for testing hypotheses I and II showed a significant effect of learning motivation on the mathematics learning outcomes of class VI elementary school students with a contribution of 10.5%. Academic procrastination significantly affected mathematics learning outcomes of class VI elementary school students, contributing 53.0%. The multiple linear regression analysis results showed a significant influence on learning motivation and academic procrastination on the mathematics learning outcomes of sixth-grade elementary school students, with a contribution of 11.0%. Based on the results of the study, it can be concluded that learning motivation and academic procrastination have a significant effect on the learning outcomes of students in grade VI SD.

1. INTRODUCTION

Education is very important to pay attention to because it is proven that with education, humans will become more dignified and able to face the rigours of social life. Education can also improve a person's self-quality; the higher a person's level of education, the greater the potential for future success that can be achieved and obtained. Education is also closely related to the teaching and learning system, both formal and informal (Devisafitri & Pramonoadi, 2019; Wahyuningtyas & Setyawati, 2021). Education is also the

right way to develop human potential. Education is not only oriented towards improving the academic field; non-academic matters also need attention. One form of education is studying at school according to level. One of them is elementary school (SD) education (Djabba et al., 2022; Irawati et al., 2021; Muinah, 2018). In implementing learning in elementary schools (SD), mathematics is one of the subjects given to all levels in elementary schools (SD). Mathematics is one of the subjects that must be taught from elementary school age because mathematics can equip students to think logically, analytically, systematically, critically, and creatively, and to be able to work together with others. (Hadiat & Karyati, 2019; Kurniawati & Mardiana, 2021; Usatnoby et al., 2020) Judging from the objectives of learning mathematics, which plays an important role in everyday life, it is necessary to learn mathematics that does not only consist of memorising and using existing formulas but goes beyond what is learned so that it can connect the material at school with real life or On the other hand, students can relate their lives to the mathematics material learned at school (Armin & Purwati, 2021; Aziz et al., 2022; Kurniasari, 2019). Thus, mathematics is one of the basic sciences that students must master because it cannot be separated from everyday life.

However, the reality on the ground shows that students' abilities in learning mathematics are still relatively low (Aledya, 2019; Atmaja et al., 2021). The low ability of students to learn mathematics is caused by a lack of interest and motivation for students to learn during the mathematics learning process (Fiana et al., 2019; Ningrum et al., 2019). Based on initial observations carried out in class VI of SD Gugus III, Abiansemal District, it can be seen that students' learning motivation is still low. This can be seen from some students not taking lessons seriously and not being enthusiastic. Low learning motivation causes students' learning processes to be hampered; besides that, there are students who, when asked, hesitate to answer questions asked by the teacher. This shows that students' lack of motivation and dislike of mathematics lessons can affect their' mathematics learning outcomes. Apart from explaining this problem, there is also the problem of academic procrastination. It is known that some students like to procrastinate in completing the assignments given and choose activities they like, which has an impact on not completing the assignments given by the teacher. Besides that, students lack confidence in their abilities, and students who do not understand the learning material tend to find it difficult to complete the assignments given. In the end, cheating on a friend's assignment results will give rise to a habit of academic procrastination. If students frequently procrastinate, they will be lazy about doing work or completing their assignments on time. This problem will certainly have an impact on the problem of low student mathematics learning outcomes. Then they will be too lazy to do a job or do their assignments on time. This problem will certainly have an impact on the problem of low student mathematics learning outcomes. Then they will be too lazy to do a job or do their assignments on time. This problem will certainly have an impact on the problem of low student mathematics learning outcomes.

Motivation is basically the driving force that exists within students. If a student is motivated in a lesson, the student will receive the lesson very well and then carry out all learning activities optimally (Pohan, 2018; Wartu, 2018). Motivation can arise due to internal and external factors in students (Jais & Fahnur, 2021; Usatnoby et al., 2020). Students with high learning motivation have the initiative to carry out learning activities with high intensity and are patient when facing failure (Saputro et al., 2021; Yusuf et al., 2022). Students who have high motivation can overcome the possibility of being more successful in the next task given by the teacher with more effort (Munir, 2018; Yusuf et al., 2022). Thus, increasing motivation will be very helpful in solving mathematics problems. Apart from learning motivation, academic procrastination is an equally important factor that can influence mathematics learning outcomes. Academic procrastination is the irrational tendency to delay starting or completing academic assignments to the point of displeasure, ultimately leading to failure to do what should be done. (Mahmud. s et al., 2022; Usatnoby et al., 2020). Thus, academic procrastination has a significant negative relationship with learning outcomes. Students' attitudes towards facing and completing assignments vary. There are students who have high self-regulation, so they are able to manage their work time and complete assignments well while still paying attention to the type of assignment and the time limits that have been determined (Nuryani et al., 2022; Rahmadani, 2018). However, there are also those who choose to postpone doing assignments, for example, because they have difficulty completing assignments, have more important activities, or are waiting for a deadline (Az'Zahra et al., 2021; Jais & Fahnur, 2021; Silfitriah & Mailili, 2020). Academic procrastination has an adverse impact on student learning achievement. So, the higher the level of student academic procrastination, the lower the student's learning achievement. Thus, it can be seen that academic procrastination can reduce student learning achievement.

Several previous studies have revealed that there is a significant influence between self-efficacy, motivation and academic procrastination on the mathematics learning achievement of class VIII junior high school students. (Arifani & Purnami, 2018). The results of other research also reveal that there is a significant relationship between learning motivation and procrastination on the learning process of class VIII SMP students. (Sundaroh et al., 2020). The results of further research revealed that there was a

significant relationship between learning motivation and active learning and the science learning outcomes of fifth grade elementary school students (Tegeh & Pratiwi, 2019). Based on several research results, it can be said that motivation and academic procrastination have a significant influence on student learning outcomes. It's just that in previous research, there have been no studies that specifically discuss the influence of learning motivation and academic procrastination on the mathematics learning outcomes of sixth grade elementary school students. So this research focuses on this study with the aim of analyzing the influence of learning motivation and academic procrastination on the mathematics learning outcomes of sixth grade elementary school students.

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2. METHOD

This research is classified as a type of ex post facto research that is correlational, using two independent variables and one dependent variable. The independent variables in this research are learning motivation (X1), and academic procrastination (X2), and the dependent variable in this research is mathematics learning outcomes (Y). The design of a variable relationship patterns in this research can be seen in Figure 1.

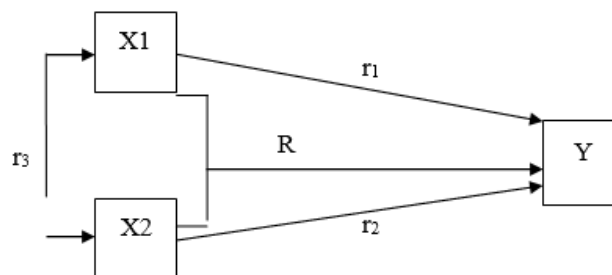


Figure 1. Design of a Variable Relationship Pattern

A portion of the population that represents the population can be taken using sampling techniques. The sampling technique used in this research is proportional random sampling. Determining the minimum sample size can be done using a table developed by RV Krecjie and DW Morgan with an accuracy level of 95% and a significance level of 5%, namely by adjusting the population size at SD Cluster III Abiansemal District and the population in the RV Krecjie and DW Morgan table. The population used was 106, and the population that is close to the population in SD Gugus III Abiansemal District in the RV Krecjie and DW Morgan table is 110, with a minimum sample size of 86 people. Based on this, it shows that in this research, 86 respondents must have been recruited for data collection.

The data collection method used in research at Gugus III Elementary School, Abiansemal District, for class VI students used a non-test method. Non-test methods are ways of collecting learning progress other than through tests. Collecting data using non-testing methods requires several instruments. This research uses a questionnaire instrument as a data collection tool for the independent variable and document recording for the binding variable. The questionnaire instrument is a data collection tool for the independent variable, which is used to collect data about students' learning motivation and academic procrastination. Data collection is carried out by recording several documents that contain the information needed and used in the dependent variable; namely, it is used to collect data on students' mathematics learning outcomes obtained by recording students' report cards in semester I. The preparation of research

instruments for learning motivation variables is adjusted to the grid, and indicators related to the variables are to be measured. The instrument grid was created to be able to map the question numbers, which contain indicators of the variables measured in this research. The research instrument grid can be seen in [Table 1](#) and [Table 2](#).

Table 1. Learning Motivation Questionnaire Grid

No.	Learning Motivation Indicators	Number of Statement Items		Amount
		Favorite	Unfavorable	
1	There is encouragement and need to learn	1, 2, 3, 5, 7	4, 6	7
2	Tenacious in facing difficulties	8, 10, 12	9, 11	5
3	There is passion and desire to succeed	13, 15, 16, 18, 20	14, 17, 19	8
4	There are hopes and aspirations for the future	21, 23, 25, 27, 28	22, 24, 26	8
5	Persevere in facing tasks	29, 31, 33	30, 32	5
6	There is appreciation in learning	34, 36, 38, 40	35, 37, 39	7
Total		25	15	40

Table 2. Academic Procrastination Questionnaire Grid

No.	Indicators of Academic Procrastination	Number of Statement Items		Amount
		Favorite	Unfavorable	
1	Delay in starting or completing the task at hand	1, 3, 5, 7	2, 4, 6, 8	8
2	Doubt about your abilities so you choose to postpone completing tasks	9, 10, 12, 14	11, 13, 15, 16	8
3	Doing other activities that are more enjoyable than doing the tasks that should be done	17, 19, 20, 23	18, 21, 22, 24	8
4	Failure to submit assignments on time	25, 27, 28, 30	26, 29, 31, 32	8
5	Delay in doing assignments	33, 34, 37, 39	35, 36, 38, 40	8
Total		20	20	40

In the questionnaire used, the author conducted several tests to gain a theoretical understanding related to the quality of the instrument to be used. Instrument testing in this research consists of theoretical validation, empirical validation, and reliability testing. This study employs statistical analysis methods, which can be divided into two parts: descriptive statistical analysis and inferential statistical analysis. In this research, both descriptive statistical analysis techniques and inferential statistical analysis techniques are utilized. Descriptive statistical analysis is a method used to analyze data by describing or depicting the collected data. Inferential statistical analysis, on the other hand, is a technique used to test hypotheses in a study. This statistical data analysis includes preliminary analysis and data analysis testing.

3. RESULT AND DISCUSSION

Result

The description of the data from this research explains learning motivation (X1) and academic procrastination (X2) as independent variables and mathematics learning outcomes (Y) as the dependent variable. Data regarding the mathematics learning outcomes of class VI students at Gugus III Elementary School, Abiansemal District, was obtained through the grade VI students' report cards for the odd semester, especially in the student knowledge competency section (K13). The number of samples used in this research was 86 students. A description of the data is shown in [Table 3](#).

Table 3. Description of Mathematics Learning Outcome Data

Statistic Analysis	Mathematics Learning Outcomes
Sample	86
Maximum Score	94
Minimum Score	76
Mean	84.16
Standard Deviation	3.71
Variance	13.76

Data regarding the learning motivation of class VI students at Gugus III Elementary School, Abiansema District, was obtained by distributing questionnaires. The number of samples used in this research was 86 students. The data description can be seen in [Table 4](#).

Table 4. Description of Learning Motivation Data

Statistic Analysis	Motivation to learn
Sample	86
Maximum Score	100
Minimum Score	68
Mean	84.15
Standard Deviation	8.26
Variance	68.22

Data regarding the academic procrastination of class VI students at Gugus III Elementary School, Abiansema District, was obtained through the distribution of questionnaires. The number of samples used in this research was 86 students. A data description can be seen in [Table 5](#).

Table 5. Description of Academic Procrastination Data

Statistic Analysis	Academic Procrastination
Sample	86
Maximum Score	77
Minimum Score	30
Mean	55.23
Standard Deviation	11.36
Variance	129.12

Discussion

Learning motivation is one of the factors that determines effectiveness in learning. A student will learn well if there is a driving factor, namely motivation to learn ([Makhmuri, 2020](#); [Tanjung, 2022](#); [Usa & Muhudiri, 2021](#); [Yumeri et al., 2022](#)). Mathematics learning outcomes themselves are obtained from students' abilities when mathematics learning takes place. Increasing students' learning motivation will be very helpful in solving mathematical problems and achieving optimal learning outcomes ([Fiana et al., 2019](#); [Ningrum et al., 2019](#)). On the other hand, students who do not have motivation will find it difficult to follow lessons in class, and this can affect students' mathematics learning outcomes. Students will be able to study well and get good learning results if they have high learning motivation ([Jais & Fahnur, 2021](#); [Usatnoby et al., 2020](#)). The results of hypothesis testing show that students will obtain optimal mathematics learning outcomes if they can be motivated in a lesson. The student will receive the lesson well and then carry out all learning activities optimally. Thus, increasing motivation will be very helpful in solving the mathematical problems that students are facing. To achieve good learning outcomes, students are required to determine for themselves what actions must be taken to achieve their learning goals. Learning motivation has a relationship with student learning outcomes. Learning motivation is important because it can be a factor that influences student learning outcomes ([Manganganti et al., 2022](#); [Munir, 2018](#); [Putri & Kurniasari, 2020](#)). Apart from that, teachers play an important role in increasing students' learning motivation. Teachers can use appropriate and varied methods in teaching students so that the material presented can be well received by students. ([Saputro et al., 2021](#); [Yusuf et al., 2022](#)). Teachers who are successful in teaching are teachers who are good at arousing students' interest in learning. So increasing students' learning motivation is very necessary to maintain and increase students' enthusiasm for learning.

Apart from being influenced by learning motivation, students' mathematics learning outcomes are also influenced by their academic procrastination, where academic procrastination is the behaviour of procrastinating work in the academic field. In more detail, it is explained that academic procrastination is a delay in carrying out academic tasks carried out by students who prefer to carry out an activity that they want, even though they know that procrastination can have a negative impact ([Stevani & Marwan, 2021](#); [Syafiana Putri, 2022](#); [Zuraidah et al., 2020](#)). Procrastination behaviour carried out by students consciously can cause less than optimal assignments, resulting in less than optimal grades ([Nurlita & Gusmalinda, 2020](#); [Pradja & Latif, 2019](#); [Siregar & Siregar, 2017](#)). The higher the level of student academic procrastination, the lower the student learning outcomes. Vice versa, the lower the level of student academic procrastination, the higher the learning outcomes obtained by students ([Mahmud. s et al., 2022](#); [Usatnoby et al., 2020](#)). The results of hypothesis testing show that students will obtain optimal mathematics learning outcomes if they

can overcome procrastination behaviour so that later they can obtain good learning outcomes and success in learning. There is a negative relationship between academic procrastination and student mathematics learning outcomes. Students who can minimize academic procrastination will immediately carry out their duties as students, especially completing assignments given by the teacher, without delaying starting or completing them and prioritizing work rather than doing anything other than assignments.

Learning motivation and academic procrastination are factors that can influence student learning outcomes in mathematics subjects. Motivation is an important factor in the learning process for achieving the expected learning outcomes. Learning motivation can be interpreted as an urge to carry out a task as well as possible, and the higher the learning motivation that an individual has when facing a task, the lower the student's academic procrastination will be. (Az'Zahra et al., 2021; Jais & Fahnur, 2021; Silfitrah & Mailili, 2020). Therefore, students who have high learning motivation will not engage in academic procrastination because this can hinder the achievement of their goals and affect learning outcomes. The main factors causing the decline in student mathematics learning outcomes are decreased student learning motivation and the occurrence of student academic procrastination (Nuryani et al., 2022; Rahmadani, 2018). The results of hypothesis testing show that there is an influence of learning motivation and academic procrastination on students' mathematics learning outcomes. If students' learning motivation is high, their' academic procrastination behaviour will tend to be low. So that students who have high learning motivation and can overcome academic procrastination behaviour are expected to be able to achieve good learning outcomes in mathematics learning.

The results obtained in this study are in line with the results of previous research, which also revealed that there is a significant influence between self-efficacy, motivation, and academic procrastination on the mathematics learning achievement of class VIII junior high school students (Arifani & Purnami, 2018). The results of other research also reveal that there is a significant relationship between learning motivation and procrastination in the learning process of class VIII SMP students. (Sundaroh et al., 2020). The results of further research revealed that there was a significant relationship between learning motivation and active learning and the science learning outcomes of fifth-grade elementary school students (Tegeh & Pratiwi, 2019). So based on some of the results of this research, it can be said that motivation and academic procrastination have a significant influence on student learning outcomes.

4. CONCLUSION

The results of hypothesis testing indicate that there is an influence of learning motivation and academic procrastination on students' mathematics learning outcomes. Students with high learning motivation and the ability to overcome academic procrastination behaviour are expected to achieve good learning outcomes in mathematics.

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