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Analysis of the Relationship Between Students' Discipline Attitude on Physics Student's Learning Outcomes

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Abstract

This study aims to analyze whether student discipline affects physics learning outcomes in physics subjects at SMAN 8 Jambi City. The population in this study were all students of class X at SMAN 8 Jambi City. The sample of this study was students of class X IPA 1, X IPA 2, X IPA 3, totalling 79 students at SMAN 8 Jambi City. The regression test results stated that there was an influence between students' disciplined attitudes towards physics learning outcomes by 65%, while the remaining 35% was influenced by variables other than the variables studied. Based on the research results above, it can be concluded that there is a positive influence between learning disciplines on physics learning outcomes. Students who have a good discipline attitude will also experience an increase in obedience and perseverance in learning so that it has a good impact on learning outcomes. Vice versa, if students do not have a good learning discipline attitude, it will make students disorganized in the learning process and cause student learning outcomes to be not good.

Keywords: Attitude; Discipline; Learning Outcomes; Science

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INTRODUCTION

Education can be regarded as one of the efforts made to develop the potential of human resources by providing guidance and providing learning facilities for students (Astalini, Kurniawan, Melsayanti, & Destianti, 2018). In addition, education is also said to be a way to influence students to adapt themselves as best they can (Oktaviana, Jufrida, & Darmaji, 2016). The importance of education in people's lives is that every individual can place himself well in the family environment or the community environment (Astalini, Kurniawan, & Putri, 2018).

Education is the basis for improving and developing the quality of human resources (Maulana, Jufrida and Pathoni, 2018). Because of quality human resources, it can support a nation and state (Joneska, Astalini, & Susanti, 2016). Therefore, changes or developments in education must be carried out along with cultural changes in life (Dwijayanti & Pathoni, 2016).

At the high school level, several subjects come from the integration and

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discipline of the natural and social sciences (Kurniawan, Astalini, & Anggraini, 2018). One of the important school lessons in physics learning (Dani, Latifah, & Putri, 2019). Besides being necessary, physics is one of the sciences that must be given to students.

Physics subject is an effort or process to provide students with learning to master and understand the nature of physics (Kurniawan, Astalini, & Kurniawan, 2019). Physics is a branch of science whose purpose is to study natural phenomena (Saputra, Hendri and Aminoto, 2019). Physics is a part of science where most of its findings are obtained from experiments (Barokah, Asrial, & Maison, 2019).

In other words, physics is an attempt by each individual to understand the universe through observation activities (Jufrida, Basuki, Xena, & Hasminingsih, 2019). Not only that, but physics is also a subject that requires direct experience from students (Maysitha, Jufrida, & Pathoni, 2017). According to the general view, there are still too many students who think that physics is a complex subject, and many formulas make it difficult for students to understand it (Faithful, Susanti, & Kurniawan, 2017).

One of the impacts that occur from difficulties in learning physics is student learning outcomes. Learning outcomes themselves are a form of achievement that each student wants to achieve (Pasaribu, Hendri, & Susanti, 2017). In addition, learning outcomes are a measure of the success of students in understanding learning material(Arrasyid, Jufrida, & Darmaji, 2017). It can be said that learning outcomes are very dependent on their own educational goals (Kurnia, Hendri, & Pathoni, 2016). Low learning outcomes can be influenced by several factors, such as external factors and internal factors (Chotimah, Hendri, & Rasmi, 2018). One of the factors that influence learning outcomes is the attitude of learning discipline.

Feelings towards an object shown in the likes and dislikes that arise in the students themselves can be said to be attitudes (Astalini, Kurniawan, Perdana, & Pathoni, 2019). Attitude can also be interpreted as a view or feeling followed by a tendency to act towards a certain object (Hardiyanti, Astalini and Kurniawan, 2018). A student's attitude can determine the success of the material absorbed in learning activities (Astalini, 2018).

Each student has a different attitude towards physics, depending on the factors that influence it (Kurniawan, Astalini, Kurniawan, & Pathoni, 2019). So that the attitude towards physics can be seen from the behaviour of accepting or rejecting the object of physics or the attitude of being happy or not happy with physics (Kurniawan et al., 2019), studying physics can lead to disciplined and orderly nature, creative thinking, careful, fast and precise (Fakhruddin, Eprina, & Syahril, 2010).

One of the problems that are often faced in schools is the problem of student discipline. The discipline itself is an attitude that shows the willingness of an individual to comply with a set of rules, regulations, or values and rules that apply (Elly, 2016). Discipline at school is closely related to student craftsmanship in participating in learning at school and discipline in school. Thus, so that students have the motivation to learn more advanced, students must have a disciplined attitude in learning, both discipline in the classroom or school and discipline at home (Utami, Hendri, & Darmaji, 2017). Discipline is one of the components of character that cannot be separated from each student (Kuriawan et al., 2019).

In conducting this research, the study of discipline is a discipline at school and discipline at home (Susianah & Yusuf,

2015). Discipline here plays an essential role in the life of every individual (Alimaun, 2015). Where the measuring instrument used in measuring attitudes is using a questionnaire instrument (Monalisa & Sukarni, 2019). The disciplinary attitude of students is closely related to the learning outcomes obtained. A positive attitude will lead to good learning outcomes, while a negative attitude will lead to poor learning outcomes. Based on the description above, it can be said that the purpose of this study is to investigate the effect of student learning discipline attitudes on student physics learning outcomes.

METHOD

This research was conducted at the State High School 8 Jambi City, which is located on Jl. Marsda Surya Dharma, Recognize Asam Bawah, Kec. New Town in November 2020 online. This research aims to see whether there is a relationship between student learning discipline attitudes and student learning outcomes in physics subjects at State Senior High School 8 Jambi City. The method used in this research is quantitative research with the type of survey research. The KBBI survey can be interpreted as a research technique that limits the data to be studied and investigated.

The subjects of this study were students of State Senior High School 8 Jambi City, students of class X Science 1, X Science 2 and X Science 3, totalling 79 students. The technique of collecting data in this research is using the purposive sampling technique. The research was conducted by collecting data using an assessment instrument in a questionnaire or questionnaire about the attitude of learning discipline, totalling 24 items. It uses a Likert scale. The scale is from 4 points with positive statements. The value is always 4, often 3, rarely 2 and never 1. As for the weight of negative statements is 1 always, 2 often, 3 rarely, 4 never. In addition, the data for learning outcomes uses mid-semester test scores in physics subjects.

In conducting this research, the first step that a researcher must take is to distribute online questionnaires via google form during a pandemic. After distributing the questionnaire, the desired data will be obtained. After getting the data, the step that must be done is to analyze the data using SPSS with regression type analysis which is equipped with a narrative explanation. One of the purposes of using regression analysis in this study is to predict the dependent variable (Y) if the independent variable (X) is known. In addition, regression analysis aims to find out or describe how strong the relationship of students' discipline attitudes on physics learning outcomes. The independent variable in this study is the student's learning discipline attitude variable.

RESULTS AND DISCUSSION

Discipline is an order that can regulate the life of every human being. Discipline can be caused by the awareness of each human being himself and the urge to obey the rules that have been set. Students who have a disciplined attitude will have a high sense of responsibility. In addition, with a disciplined attitude, students can manage or utilize study time as well as possible to impact student learning outcomes (Susianah & Yusuf, 2015).

This study aims to analyze student discipline attitudes and the influence on student learning outcomes in learning Physics Class X IPA at SMA N 8 Jambi City. This research was conducted by distributing online questionnaires via google form to students. The number of samples taken from this study was 79 samples where the samples came from class X IPA 1 totalling 23 students, X

IPA 2 totalling 27 students and X IPA 3 totalling 29 students. The results of the student attitude questionnaire in the analysis below use four categories of attitudes, namely attitudes that are not good, enough, good and very good. For learning outcomes data obtained from the Middle Semester Exam scores of class X IPA students at SMA N 8 Jambi City.

Table 1 shows the disciplined attitude of class X students at SMA N 8 Jambi City is taking physics lessons at school. The results of the descriptive analysis can be concluded that the most dominant discipline attitude is in the very good category with a percentage of 52.2% or as many as 42 students. While the complete results are: for the good category the percentage is 41.8% or as many as 33 students, the category is quite good with a percentage of 5.1% or as many as four students, and the very bad category is 0%, or no students have a disciplined attitude. Which is not good.

Table 1 Description of Student Discipline

	Classification		
Range	**Category**	**Amount**	**%**
24.0-42.0	Not good	0	0
42.1-60.0	Enough	4	5.1
60.0-78.0	Well	33	41.8
78.1-96.0	Very good	42	53.2

After analyzing the students' discipline attitude, the researcher then analyzed the physics learning outcomes of class X students at SMA N 8 Jambi City. Physics learning achievement variable data obtained through the mid-semester test scores for class X in Physics subjects.

Table 2 Description of Student Learning Outcomes

Mean	81.77
Median	85.00
Maximum	100.00
Minimum	50.00
Mi	75.00
SDi	8.33

Based on the calculations that have been made, a distribution table can be made in Table 3.

Table 3 Description of Student Learning Outcomes Categories

Range	**Category**	**Amount**	**%**
< 66.67	Not good	10	12.7
66.67-83.33	Enough	28	35.4
>83.33	Well	41	51.9

Based on Table 3 above, the variables of physics learning achievement in class X IPA at SMA N 8 Jambi City can be categorized into good categories as many as 41 students with a percentage of 51.9%. Meanwhile, physics learning achievement in the sufficient category is 28 students with a percentage of 35.4%, and student achievement in the poor category is 10 students with a percentage of 12.7%.

After analyzing students' discipline attitudes towards physics subjects and analyzing student achievement in physics subjects, the researchers then conducted a simple linear regression test to find out whether there was an effect of discipline attitude (X) and physics learning outcomes (Y) in class X IPA at SMA N. 8 Jambi City. The results of the simple linear regression test can be seen in Table 4.

Table 4 Simple Linear Regression Test

Model	R	R Square	Std.Error of the Estimate
1	.255a	.650	11.18574

It can be seen in Table 4 that the correlation coefficient value for the value (R) is 0.255. This explains a correlation between student discipline (X) and learning outcomes (Y). The coefficient of determination (R2) = 0.650 explains that there is an influence of all independent variables on the dependent variable, which is 65%, while other variables besides those studied influence the remaining 0.350 or 35%.

Table 5 ANOVA Test

Model	Sum of Squares	df	F	Sig
1				
Regression	667.590	1	5.336	.024b
Residual	9634.308	77		
Total	10301.899	78		

Table 5 above shows that the value of F = 5.336 with a sig of 0.024 <0.05, which means that students' learning discipline attitudes affect physics learning outcomes. Next, to find out that the coefficients in the regression equation, the researcher has presented them in the Table. 6.

Table 6 Test Coefficient

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig
	B	Std. Error	Beta		
1 (Constant)					
Attitude	59.216	9.846 .125		6.014	.000
	.289		.255	2.310	.024

The results from Table 6 show that the attitude variable has a significant value of 0.024 <0.05, which means that the learning discipline variable has a significant effect on physics learning outcomes. For the regression coefficient of learning discipline attitude of 0.289, which means it is positive, it means that each addition of one learning discipline variable (X) is increased by one unit, it will increase the value of the dependent variable, namely learning outcomes (Y) of 0.289. The learning discipline attitude indicator that has been tested in this study has an average value of 78.038 and is categorized into very good or high categories. Meanwhile, the learning outcomes variable has an average of 81.7722 and is included in the very good or high category.

Based on the research results, it is known that the students' discipline attitude is in a good category. Likewise for student learning outcomes included in the good category. The results obtained indicate that the better the student's discipline attitude will affect student learning outcomes. One of the factors that cause good student learning outcomes is student discipline in the learning process at school. Based on the results, there is a positive and significant influence between student learning discipline and student physics learning outcomes. Students who have a high sense of discipline can follow the learning process and understand the material presented by the teacher to the maximum. So this shows that students who have a high learning discipline attitude will also get high learning outcomes. Students who have a high learning discipline attitude will get high learning outcomes as well. Discipline that is meant here is a discipline in entering class, doing questions, following class lessons, obeying school rules, and studying at home. So that if the student's disciplinary attitude is high, it will affect student learning outcomes. This is following research(Indrianti, Djaja, & Suyadi, 2017) which states that students who have a good discipline attitude will also have increased obedience and perseverance in learning to have a good impact on learning outcomes. Vice versa, if students do not have a good learning discipline attitude, it will make students disorganized in the learning process and cause student learning outcomes to be not good. Vice versa, if students do not have a good learning discipline attitude, it will make students disorganized in the learning

process and cause student learning outcomes to be not good. In addition, research conducted by (Fitriani, 2016) states that good discipline students will encourage motivation to compete and achieve good achievements. So that if students have a good discipline attitude in learning activities, it will certainly affect good learning outcomes(Indrianti et al., 2017). This is following the statement (Hamalik, 2014), which states that students' undisciplined behaviour will cause adverse consequences both for students and the implementation of learning.

CONCLUSION

Based on the research that has been done, it can be concluded that the attitude of discipline and student learning outcomes are included in the good category. In addition, there is a positive influence between students' disciplined attitudes towards student learning outcomes in physics subjects. Based on these results, the better the student's discipline attitude, the better the learning outcomes obtained by students. Suggestions for further research are to be able to examine other characters apart from the character of the learning discipline and be able to develop or perfect the research that has been done.

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