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The Effect of Learning Discipline and Learning Motivation on Learning Outcomes in Mathematics

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ABSTRACT

The following are the goals of this investigation, as stated in the research article: 1) learning about the influence of learning discipline, 2) learning the effect of learning discipline with learning discipline, and 3) simultaneously learning how the influence of learning discipline on learning motivation has on learning outcomes at SMP Negeri 1 sawahlunto.at Ex post facto correlational research is what is being done in this study. This study was conducted at SMPN 1 Sawahlunto. The sample is 53 individuals was selected using a proportionate random selection approach. The data in this study were examined using a simple linear regression analysis test and a multiple linear regression analysis. When the research findings were analyzed, it was discovered that: (1) Student learning discipline at SMPN 1 Sawahlunto is in the very high category. (2) SMPN 1 Sawahlunto pupils' learning motivation is in the high range. (3) The mathematics learning outcomes at SMPN 1 Sawahlunto are excellent. (4) Learning discipline has a significant influence on mathematical learning outcomes. (5), Learning motivation has a significant influence on learning outcomes in mathematics. (6) There is a significant impact of learning discipline and learning motivation combined on learning outcomes in mathematics.

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1. INTRODUCTION

The progress of nation is of course highly dependent on the level of education. Education aims to improve the standard of living of the Indonesia people. In order the obtain quality and superior human resources , education must be prioritized. Every human being needs education to lead fulfing life. Education must be done deliberately with the aim of humanizing humans. School is one of the organizations in charge of providing education.

The purpose of education is to help people to better and realize their full potential to deal with life's difficulties. All aspects of personality and human development can be influenced by education. A unified whole that includes all educational units is called the national education system and related activities that strive to realize the goals of the national education unit (Syafaruddin et al., 2022). The productivity of a human resource as well as its quality can be developed if there is a superior education. This encourages a nation to build its educational science and technology quickly and sophisticatedly. Educational institutions as one that can be said as a place to produce good and great, useful people who will help the country achieve its development goals are schools.

Of course discussing the quality and quality of education cannot be separated from learning activities in class. Teachers and students are two important components of classroom learning. Teachers as educators are in charge of teaching, while students are in charge of learning (Rusdinal et al., 2022). Teachers need a variety of teacher knowledge and abilities that are appropriate to carry out their profession in line with the needs of the times and advances in science and technology. Information that is directly

related to how children learn is one of the sciences that educators should properly master, both now and in the future. One way is to help children develop their personality by making their teacher a role model or role model for students because every student has the urge to imitate them (S. S. Putri & Wiyani, 2021).

When studying at home or at school students still have to maintain discipline, of course, so they can understand more complex subjects and have high motivation (Rahman et al., 2020). According to Komensky in (Tarmizi, 2021)discipline is the art of educating, training, teaching processes, and disciplinary content in schools. Farida in (Norawati et al., 2021) argues that an action that follows a certain method is called discipline. School discipline and student expertise during the learning process are closely related. According to Rufi, Sutrisno, and Bambang in (D. Putri, 2019)indicators of learning discipline include: 1) student behavior in class, 2) student behavior when doing assignments or exams, 3) student behavior students when submitting their assignments, and 4) student behavior when using the facilities or facilities used in learning at school. The following can be used to measure the level of discipline in student learning, the indicators according to Moenir's opinion in (Harefa, 2020) are as follows: 1) Time discipline skills, such as: Being on time with learning, which includes going home and coming to school on time, as well as starting and finishing studying at school or at home, not skipping school, and being able to complete assignments until they are ready based on the time allotted. 2) Discipline measures, include: adhering tolaw and not breachingit, study assiduously, dont ask others to do our work for us, don't lie and engagein pleasureable activities, like not cheating. For students in the learning process takes place learning discipline is very important, these two things also have a close relationship with learning motivation. Meanwhile, motivation also has a relationship with the success and learning abilities of students (Singgih, 2006).

According to Uno in (Rista, 2021) motivation is in the form of encouragement that arises as a result of stimulation either from outside or within a person to improve his behavior or perform certain tasks better than before. Hadiyantoin (Ernita et al., 2022)argues that motivation in learning activities or in the teaching process is known as learning motivation, namely motivation that arises or exists when learning activities. When doing learning motivation in learning is used as a condition for us to learn and is very useful for fostering love and enthusiasm for learning. Learning motivation also includes the development and understanding of learning, not merely as a driving force for us to be able to achieve the targets/goals and goals of learning. Every student or pupil encourages himself or herself to learn knows and comprehends the of the learning process achieved by student's willingness to learn.

These signs indicate that motivation has the following measurable characteristics: 1) Dare to face every difficulty. 2) Consistent in carrying out tasks. 3) Prefer to work alone. 4) Show your interest in various issues. 5) Routine work makes you bored quickly. 6) Able to defend own point of view. 7) It is difficult for him to let go of the things he believes in. 8) Willing to solve difficulties (Rosmanah, 2021).

Learning outcomes are in the form of a change that will be obtained by students or students after carrying out the learning process (Handayani & Subakti, 2021). Meanwhile (Sarmiati et al., 2019) argues that this learning outcome is a result obtained at the end of the learning activity hoping to be able to achieve or obtain it after we carry out the learning process. According to (Rahmawati, 2020) learning outcomes are accomplishments made by student or group after engagingin learning activities or working on particular subjects for a defined amount of time.

Less or poor student learning outcomes occur due to lack of desire or motivation and self-discipline in the learning process. Discipline of study and student motivation in school will affect the level of student achievement. Students who have discipline and high learning motivation often get good learning results. Students who lack discipline and lack enthusiasm for learning, on the contrary, will have poor learning outcomes in all fields studied by students, including mathematics. (Dompas et al., 2019) said in their research that for some students, mathematics is a difficult subject to learn. , scary, and scary, so many students don't like it. They also don't take the initiative to ask even though they don't understand. It is clear from this that pupils or students will obtain less than ideal results in learning mathematics unless there is discipline and high learning motivation for each student in carrying out the mathematics learning process.

After conducting an interview with one of the teachers who taught mathematics at SMP Negeri 1 Sawahlunto, the students still lacked interest and enthusiasm for learning. This can be seen from the results of student learning in semesters, especially in the field of learning mathematics for class VIII SMP Negeri 1 Sawahlunto. Most of the children's test results are still unsatisfactory. This possibility occurs because the majority of students previously allegedly did not learn, repeat, or fully understand the topic of the lesson. Most of these children are also still lazy to complete the homework given by the teacher, some are even late. During the learning process there are still some students who talk, when the teacher is explaining and explaining the material they are busy joking with their friends, the result is not focus and do not understand the learning material presented by the teacher.

From the reality of the phenomenon that has been described, of course it needs to be proven through research. Therefore, the authors are interested in conducting research on the influence of learning discipline and learning motivation on learning outcomes in mathematics for students at SMP Negeri 1 Sawahlunto. The formulation of the problem, which in this study is as follows, is then determined based on the background that has been provided by the researcher as well: (1) Do discipline influence mathematicslearning outcomes? (2) Do learning motivationsinfluence mathematicslearning outcomes? (3) Do learning discipline and learning motivation influence mathematics learning outcomes at SMP Negeri 1 Sawahlunto?

Hypotheeses are necessary for research and (Arikunto, 2019)opines on the description of hypotheses, in his opinion, hypotheses are really remember likely theoretically and tentative answers to the top caste research questions said it is true. Hold on problems research, we first formulate a behavioral hypothesis as the initial statement of the researcher, namely:

1. H0 = there is no difference between the influence of learning discipline on the learning outcomes of students in mathematics at SMP Negeri 1 Sawahlunto
   H1 = there is an influence between learning discipline on the learning outcomes of students in mathematics at SMP Negeri 1 Sawahlunto
2. H0 = there is no difference between the effect of learning motivation on students' mathematics subjects at SMP Negeri 1 Sawahlunto
   H2 = there is an influence between learning motivation on student learning outcomes in mathematics at SMP Negeri 1 Sawahlunto
3. H0 = no effect between learning discipline and learning motivation on student learning outcomes in mathematics at SMP Negeri 1 Sawahlunto
   H3 = there is an influence between learning discipline and learning motivation on the learning outcomes of students in mathematics at SMP Negeri 1 Sawahlunto

2. METHOD, DATA, ANALYSIS

This article is a type of causal ex post facto research or causal quantitative research is this type of research. According to (Sugiyono, 2017), causal research tries to build a relationship between two causally related variables. This study sought to determine how learning motivation and learning discipline affected the outcomes of mathematics instructuion at SMP Negeri 1 Sawahlunto. In this study, learning motivation and discipline were the independent variables, while students' mathematics learning in class was the dependent variable or Y variable. According to (Sugiyono, 2017)the term populations refres to a general argues area or location that is made up of people or good that have been chosen by research to be studied, understood, and then inferred from. Therefore, class VIII, namely VIII 1 and VIII 2 with each student in the class, namely 30 and 31 students, constitutes the population of this study. This study used the proportional random sample method as the sampling strategy. To obtain the required number of samples, random sampling was carried out among students in each class, resulting in 53 samples/students for this study.

The primary data, which includes information about learning motivation and learning discipline serve as independent variable data source for this study. Instruments like questionnaires with a Likert scale useful for statistically measuring people's attitudes and opinions towards a phenomenon that will be filled out by respondents. Meanwhile, the data source for the dependent variable Y is secondary data in the form of semester 1 math exam scores for the 2022/2023 school year. Data were tested quantitatively, namely by using descriptive and inferential statistical statistical techniques, hypothesis testing and regression with the help of the application program Statistical Package for Social Science (SPSS).

There are three variables in this ivestigation, two independent variables and one dependent variable. Learning discipline (X1) and learning motivation (X2) are the study's independent variables mathematics learning outcomes (Y) are the study's dependent variable. The research design can be described as follows in accordance with the tittle of this study, which aims to determine the effect of learning discipline and learning motivation on mathematics subjectlearning outcomes for class VIII students at SMP Negeri 1 Sawahlunto:

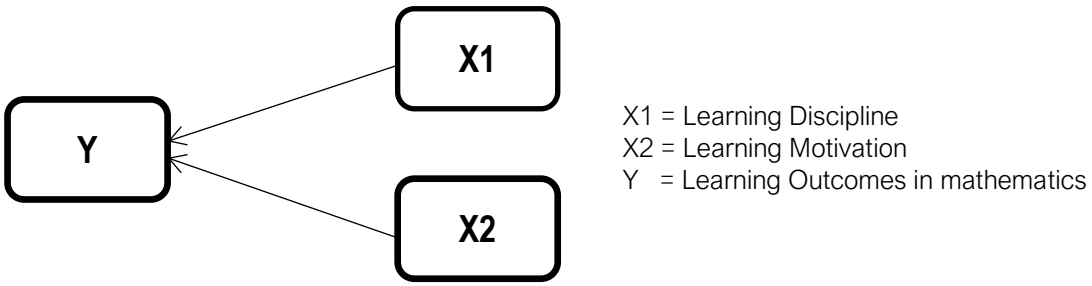

Figure 1. The relationship between the independent variable and the dependent variable. (Sugiyono, 2017).

The descriptive statistical analysis test is used in order to get an overview and analyze the respondents by knowing the object to be studied with research statistics such as the average value (mean), the highest value (maximum), the lowest value (minimum), standard deviation (standard deviation) and presentation of the frequency distribution. The test results are converted into a scale of five according to Nana Sudjana in (Sanjaya, 2014), namely:

Table 1. Range of Variable Achievement Categories

No	Percentage %	Interpretation of learning disciplines	Interpretation of learning motivation	Interpretation of learning outcomes
1.	90-100 %	Very high	Very high	Very high
2.	80-89%	Tall	Tall	Tall
3.	65-79%	High enough	High enough	High enough
4.	55-64%	Low	Low	Low
5.	0-54%	Very low	Very low	Very low

The prerequisite test, namely the normality test, is useful to find out whether the data is normal or not. Data that is suitable for use is data that is normally distributed (Windatiningsih, 2019). So that we can know that the data is normally distributed is to look at the significance value using SPSS. In order to make it easier for researchers to determine the normality of the data, it is recommended to use SPSS with the Kolmogrov-Smirnov test with the following provisions:

If the value of Asymp.Sig (2tailed) < 0.05 then the data is not normally distributed
If the value of Asymp.Sig (2tailed) > 0.05 then the data is normally distributed

This inferential analysis test is useful in testing hypotheses. This review, the logical test utilized was different straight relapse. This is obtained after carrying out the prerequisite test and can be used if the prerequisite test or assumption test has been fulfilled, in particular the ordinariness test and linearity test. The recipe in the numerous direct relapse test is

$$Y= a + b1X1+ b2X2$$

Description:
Y = Student learning outcomes in mathematics
a = fixed value or regression constant
b1 and b2 = regression coefficients, namely learning discipline and learning inspiration
X1 = learning discipline
X2 = Learning motivation (Kadir, 2016)

3. RESULT AND DISCUSSION

Result

After the descriptive statistical tests were obtained about the impact of learning discipline and learning inspiration on learning results in math, it very well may be found in the accompanying:

Table 2. Descriptive statistics of learning discipline variables (X1), learning motivation (X2), and learning outcomes (Y)

Statistics

		study discipline	motivation to learn	learning outcomes
N	Valid	53	53	53
	missing	0	0	0
Means		108.11	89.21	104.34
Median		109.00	89.00	105.00
Mode		107a	81a	92a
std. Deviation		7.122	6,428	7,041
Minimum		94	76	88
Maximum		120	100	115
Sum		5730	4728	5530

a. Multiple modes exist. The smallest value is shown

From the results of the data analysis above, it can be concluded that the description of each variable is as follows:

a. Study discipline (X1) has a minimum score of 94, indicating 94 was the lowest score among all respondents for the response to learning discipline. The highest possible score 120, indicates that out of all respondents, 120 rated learning disciplinehighly. The respondents average or mean value was 108.11. while the standard deviation is 7.122, which indicates that out of 53 respondents, the spread of the learning discipline variable data is 7.122.
b. The minimum value for Motivation to learn (X2) is 76, which indicates that out of all respondents who gave the lowest assessment, the motivation to learn response is 76. The highest possible score 100, that all respondents rated their motivation to learn highest. The respondent's average or mean value was 89.21. Whereas the standard deviation is 6.428, which indicates that out of 53 respondents, the spread of the learning motivation variable data is 6.428.
c. Mathematics learning outcomes (Y) have a base score of 88 which really intends that of all respondents who offered the most reduced evaluation the response to math learning results was 88. The most extreme score was 115 which trully intends that of all respondents who gave the most elevated evaluations of results concentrating on science is 115. the normal or mean worth of the respondents is 104.34. while the standard deviation is 7,041, and that implies that the size of the dispersion of variable information on math gaining results is 7,041 from 53 respondents.

In light of the consequences of information examination and the degree of accomplishment of the educator's reaction at SMP Negeri 1 Sawahlunto to the factors that have been estimated, to be specific the variable learning discipline (X1), learning inspiration (x2) on learning results (Y). then it tends to be made sense of that the degree of accomplishment of understudy reactions to learning discipline is in the exceptionally high class (90.20%) and learning inspiration is remembered for the high class (89.21%) and learning results are in the extremely high class (90.73%).

Then a normality test is carried out which is useful to see if this variable is regularly appropriated or not. Ordinariness testing of learning discipline variable focuses (x1), learning inspiration (x2) and learning results (y) using the Kolmogrov Smirnov-Z technique. then the data is said to be normal if it meets the requirements for a significance value > 0.05 and conversely a significance <0.05.

Table 3. Normality test of learning discipline variables (x1), learning motivation (x2), and learning outcomes (y)

One-Sample Kolmogorov-Smirnov Test

		study discipline	motivation to learn	learning outcomes
N		53	53	53
Normal Parameters, b	Means	108.11	89.21	104.34
	std. Deviation	7.122	6,428	7,041
Most Extreme Differences	absolute	079	087	084
	Positive	054	087	.073
	Negative	-.079	-.081	-.084
Test Statistics		079	087	084
asymp. Sig. (2-tailed)		.200c,d	.200c,d	.200c,d

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.

In view of the consequences of the ordinariness test with Shapiro-Wilk it is known that the dispersion of information on factors X1 (Learning Discipline), X2 (Learning Motivation), and Y (Learning Results in mathematics) gets a sig worth of 0.200 > 0.05 so it tends to be presumed that the conveyance of information variables X1, X2, and Y are normally distributed. So it can be concluded in table 3 that should be visible that the importance worth of very one these factors is > 0.05. consequently the information normality test has been fulfilled.

The next by a regression analysis test to decide the effect or impact of inspiration adn learning discipline on science learning results after processing data with SPSS. Then obtained multiple regression coefficients, where the value of the regression coefficient "b" is equal to 0.630 and 0.387 with a fixed value or a constant of 1.670, so that the regression value equation is obtained, namely:

$$\mathbf{Y = 1,670 + 0,630x1 + 0,387x2}$$

For additional insight concerning the various relapse test, it very well may be found in table 1 underneath. To get the importance worth of the relapse coefficient, it very well may be found in the test in the table 3 which shows that the worth of nFcount = 907.875 with aimportance level of <0,05. So at the aftereffects of the relapse condition are $\mathbf{1{,}670 + 0{,}630x1 + 0{,}387x2}$ critical. The regression equation that exists in the regression variable, namely learning discipline and learning motivation on learning outcomes (X1, X2 to Y) from the tests that have been carried out provide clues, namely each point growth in learning discipline (X1) and learning motivation (X2) experiences a growth of one discipline point learning (X1) and learning motivation (X2) will have an impact and affect the addition of points of 1.017 points in mathematics learning outcomes (Y) with a fixed or constant value of1.670.

Hypothesis testing is based on statistical tests, namely partial (individual) testing with the t test and simultaneous (simultaneous) testing with the F test :

a. t test

Table 4. The coefficient value of learning discipline (X1) and learning motivation (X2)

Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	Q	Sig.
		B	std. Error	Betas		
1	(Constant)	1,670	2,620		.637	.527
	study discipline	.630	.117	.637	5,372	.000
	motivation to learn	.387	.130	.354	2,980	.004

a. Dependent Variable: learning outcomes

The t test is utilized to test the impact of every free factor on the reliant variable. The reference utilized in this study is in the event that t count > t table or the importance esteem is <0.05, Ha is dismissed. In any

case, assuming the worth of t count < t table or sign > 0.05 then Ha is acknowledge. The consequences of the examination are table 4.

Decision making from this t test are:

1. If t count < t table, then in conclusion, there is no effect of variable x on Y partially (individually)
2. If t count > t table, then the conclusion is that there is influence of variable x on variable y partially (individuals)

With the results of the t test as follows:

1) First hypothesis (H1)
   It is known that the t count value is 5.372 > t table 1.675 and the significance value is 0.000 <0.05, so it can be concluded that the learning discipline variable (X1) influences learning outcomes (y). H1 is accepted
2) Second hypothesis (H2)
   It is known that the t value is 2.980 > t table 1.675 and the significance value is 0.004 <0.05, so it can be concluded that the learning motivation variable (X2) influences learning outcomes (y). H2 is accepted

b. F test

To test the third hypothesis in this study, regarding whether there is an influence between the variables of learning discipline and learning motivation simultaneously on the variable learning outcomes of mathematics subject using the F test (Simultaneous). This can be seen in the following table:

Table 4. ANOVA of learning discipline variables (X1) and learning motivation (X2) on learning outcomes in mathematics

ANOVA

Model		Sum of Squares	Df	MeanSquare	F	Sig.
1	Regression	2508,802	2	1254,401	907,875	.000b
	Residual	69,084	50	1,382		
	Total	2577,887	52			

a. Dependent Variable: learning outcomes

b. Predictors: (Constant), learning motivation, learning discipline

Sourced on the ANOVA table 4 above, it can be considered in regrads to the pay from F (simultaneous) test will be used. If Fcount<Ftable then the hypothesis is rejected. Apart from the decision-making criteria, this can also be seen from its significance value. On the chance that the importance esteem is <0.05 Ho is dismissed. The consequences of the F test in the table above got the Fcount worth of 907.875 while the Ftable was 3.18. So from the table above we can see that the value of Fcount (907.875) > from F table (3.18) and a significance value of 0.000 <0.05 means that the variables of learning discipline and learning motivation simultaneously or jointly affect the variable learning outcomes. So it is proven that hypothesis 3 has an influence between learning discipline and learning motivation on learning outcomes in mathematics.

The count of data exposure and hypothesis testing committed the three hypotheses tested by the research are acceptable. Discipline in student learning and motivation to learn individually or collectively set aside teh run on increase student income at SMPN 1 Sawahlunto, especially in mathematics.

The combination of learning discipline factors and learning motivation has a big effect on learning outcomes in mathematics at SMP Negeri 1 Sawahlunto, according to the results of processing data testing. Table 3 illustrates this, showing how learning motivation and learning discipline influence or impact on learning outcomes in mathematics. This variable obtains a calculated F value with a nominal value of 907.875 and a significance level of <0.05. as well as the equation of the regression line, namely 1.670 + 0.630X1 + 0.387X2 this provides information on if students have a disciplined attitude to study and learning motivation it will affect learning outcomes whose value is 1.670 and the regression coefficients are 0.630X1 and 0.387X2 where each increase of one point of discipline and so also with learning motivation, learning outcomes will experience an additional point of 0.630 for discipline and 0.387 for learning motivation variables. This can be proven if the discipline of learning and student learning motivation increases, it will

have an impact on the results of learning evaluations of mathematics subjects which will experience an increase.

Discussion

a. The influence of learning discipline on learning outcomes in mathematics

From the consequences of the exploration that has been depicted beforehand, it very well may be inferred that the learning discipline variable essentially affects the learning result variable. This is proven by the importance wirth of the mathematics learning outcome variable for students at SMPN 1 Sawahlunto, namely the sign value. 0.000 < 0.05. Discipline is one of the factors that can affect learning outcomes. If a student carries out his learning activities with discipline, his obedience and tenacity will grow, which will increase his learning outcomes. Therefore, learning outcomes will definitely be good if students approach teaching and learning activities with high discipline. Conversely, if students lack discipline in learning, their learning activities are not organized effectively resulting in irregular learning activities and decreased learning outcomes (D. Putri, 2019). This agrees with Hamalik's statement in (Srisiska et al., 2021) that undisciplined behavior among students will ultimately have a negative impact on the development of a child's personality and the way education is carried out in schools. The disadvantage for children is that this environment encourages dangerous and irresponsible behavior, which will have an impact on their personal growth. The disadvantage to educational practices is that it degrades the learning environment and encourages disruption of their learning, which will ultimately affect children's learning success and progress and will lead to other harmful behaviors. This is in accordance with Khasanah's assertion in (Nurdayati et al., 2021) that learning outcomes will be higher, the more disciplined student learning will be. Based on the findings that were carried out partially with the t test, it can be seen that the independent variable of learning discipline has a significant effect on the dependent variable of learning outcomes. This is evidenced in the calculation of tcount of 5.572 > ttable of 1.675 and α = 0.05 > sig t = 0.000, then learning discipline has a significant influence on student learning outcomes in mathematics subjects. In this study several indicators were used to measure, namely the indicators in the opinion of Moenir in (Harefa, 2020)are as follows: 1) Time discipline skills, such as: Being on time with learning, which includes going home and coming to school on time, as well as starting and finishing learning at school or at home, does not skip school, and is able to complete assignments until they are ready based on the time allotted. 2) Discipline Actions, such as: Following the rules and not breaking them, Studying diligently, not asking others to do our job, not lying and having fun behaviors, such as not cheating.

b. The effect of learning motivation on learning outcomes in mathematics

From the cosequences of the exploration that has been depicted beforehand, it very well may be inferred that the learning inspiration variable essentially affects the learning result variable. This outcome is proven by the importance worth of the math learning outcom variable for students at SMPN 1 Sawahlunto, namely the sign value. 0.004 < 0.05. The findings of this study corroborate with Sutrisno's statement in (D. Putri, 2019)The meaning of inspiration is a component that urges an individual to do a specific movement. In this way, inspiration is in many cases deciphered as a driving variable for an individual's way of behaving. As per the consequences of examination by (Rudini et al., 2021) that their exploration expresses that there is a huge impact of learning inspiration on learning results. This can also be interpreted in this study that when the motivation to learn is strong in students it will influence students to be more active in learning so that they can obtain satisfactory learning outcomes, including in mathematics. Based on the findings that were carried out partially with the t test, it can be seen that the independent variable of learning discipline has a significant effect on the dependent variable of learning outcomes. This is evidenced in the calculation of tcount of 2.980 ttable of 1.675 and α = 0.05 > sig t = 0.004, then learning motivation has a significant influence on student learning outcomes in mathematics subjects. The indicators used to measure it are as follows: 1) Dare to face every difficulty. 2) Consistent in carrying out tasks. 3) Prefer to work alone. 4) Show your interest in various issues. 5) Routine work makes you bored quickly. 6) Able to defend own point of view. 7) It is difficult for him to let go of the things he believes in. 8) Willing to solve difficulties (Rosmanah, 2021).

c. The influence of learning discipline and learning motivation on learning outcomes in mathematics

We can understand after conducting research that learning results are affected by understudy learning discipline. Learning activities carried out by teachers dealing with a number of students with various characters, various backgrounds, potentials, and attitudes, all of which affect their habits in participating in learning and behaving at school. There are still many habits that do not support and even hinder learning,

for example not doing homework, making noise in class and others so that these conditions require teachers to always discipline students so they can boost the quality of learning (D. Putri, 2019). Apart from the discipline of learning, learning motivation is also able to influence learning outcomes in mathematics. We can see that after conducting research, it is stated that learning motivation is certainly able to encourage students to be able to achieve their learning outcomes. Sardiman in (Rosmanah, 2021)believes that inspiration is a fundamental state of learning. Learning results will be ideal, whenever joined by inspiration. The more exact the inspiration given, the more fruitful the illustration will be. So inspiration will constantly decide the power of learning exertion for understudies. Of course, if these two things are in line between learning discipline and learning motivation, it is carried out as well and as optimally as possible by students, they will be able to influence learning outcomes more optimally, have greater opportunities to obtain high learning outcomes, and vice versa. From the results of the research that was previously described on the f test, it tends to be inferred that the factors of learning discipline and learning inspiration essentially affect the variable of learning outcomes together. Sawahlunto namely with the sign value. 0.000 < 0.05.

Based on the findings on the F test, the simultaneous or simultaneous test shows an Fcount value of 907,875 while Ftable with df quantifier = (k-1) = (3-1) = 2, and df denominator = (n-k-1) = (53-3-1) = 49. Then the Ftable is 3.18. From the table above, it is known that the value of Fcount (907,875) > from Ftable (3.18) and Sig. 0.000 <0.05 means that the variables of learning discipline and learning motivation simultaneously affect the variable learning outcomes in mathematics for students.

4. CONCLUSION

We can understand that in this research article the description is drawn that learning discipline and student motivation simultaneously have a significant effect on mathematics learning outcomes at SMPN 1 Sawahlunto based on research findings on the influence of learning discipline and learning motivation on student mathematics learning outcomes. As a result, student learning outcomes will increase if they are active and study with enthusiasm and supported by strong motivation, especially in mathematics.

Researchers' suggestions for improving learning discipline and a teacher's learning motivation can pay attention to the methods or strategies used in the learning process. As well as in the learning process a teacher must also be able to build a classroom climate that is conducive and comfortable for students. With a sense of comfort, it will build motivation, with motivation, a sense of discipline will arise in students to improve their learning outcomes for the better. High learning outcomes can also be attained by students who are extremely driven to study, therefore the greater the motivation, the greater the intensity of the effort put out, and the greater the learning outcomes attained.

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6. REFERENCES

Arikunto, S. (2019). *Prosedur Penelitian Suatu Pendekatan Praktik*. Jakarta: Rineka Cipta.

Dompas, S. C., Alghadari, F., & Rosuwulan, R. A. (2019). Perbedaan Hasil Belajar Matematika Siswa antara Pembelajaran Peer Tutoring dan Number Heads Together. *Prosiding Seminar Nasional Pendidikan STKIP Kusuma Negara*.

Ernita, M., Rohani, & Umniati, Z. (2022). Pengaruh Iklim Kelas terhadap Motivasi Belajar Siswa pada Mata Pelajaran Ekonomi di Sekolah Menengah Atas Negeri 1 Ukui. *Eklektik: Jurnal Pendidikan Ekonomi Dan Kewirausahaan*, *5*(1), 68–74.

Handayani, E. S., & Subakti, H. (2021). Pengaruh Disiplin Belajar terhadap Hasil Belajar Bahasa Indonesia di Sekolah Dasar. *Jurnal Basicedu*, *5*(1), 151–164.

Harefa, D. (2020). Pengaruh antara Motivasi Kerja Guru IPA dan Displin dengan Prestasi Kerja. *Aksara: Jurnal Ilmu Pendidikan Nonformal*, *6*(3), 225–240.

Norawati, S., Kamal, M., Zakaria, N., & Gusman, Y. (2021). Analisis Disiplin, Kompetensi, Motivasi Kerja, Kompensasi, dan Pelatihan pada Kinerja Karyawan (Studi pada PKS PT. Tunggal Yunus Estate Kabupaten Kampar). *Menara Ilmu*, *15*(1), 148–158.

Nurdayati, Tias, N. P., & Kusuma, Y. R. (2021). Hubungan Karakteristik Sosial Ekonomi terhadap Respon

Wanita Tani dalam Pembuatan Nugget Daging Itik di Desa Umbulsari Kecamatan Windusari Kabupaten Magelang. *Jurnal Pengembangan Penyuluhan Pertanian*, *18*(34), 140–152.

Putri, D. (2019). *Pengaruh Apersepsi dan Motivasi terhadap Hasil Belajar IPS Kelas V SD Negeri 16 Kota Bengkulu*. IAIN Bengkulu.

Putri, S. S., & Wiyani, N. A. (2021). Pengembangan Kompetensi Guru di Taman Penitipan Anak (TPA) Sekar Purbalingga. *ASGHAR: Journal of Children Studies*, *1*(1), 60–81.

Rahman, M. H., Kencana, R., & NurFaizah. (2020). *Pengembangan Nilai Moral dan Agama Anak Usia Dini: Panduan Bagi Orang Tua, Guru, Mahasiswa, dan Praktisi Paud*. Tasikmalaya: Edu Publisher.

Rahmawati, E. (2020). Upaya Peningkatan Hasil Belajar Matematika Siswa Kelas XI IPA SMA Negeri 1 Kediri melalui Model Pembelajaran Discovery Learning. *PTK: Jurnal Tindakan Kelas*, *1*(1), 48–70.

Rista, N. (2021). Pengaruh Media E-Learning dan Motivasi Belajar terhadap IPK Akademik Mahasiswa STKIP Panca Sakti. *Research and Development Journal of Education*, *7*(1), 126–135.

Rosmanah, Y. (2021). Peningkatan Motivasi Belajar Bahasa Inggris Materi Caption Menggunakan Media Instagram Siswa Kelas XII IPA 4 Sma Negeri 1 Dawarblandong Mojokerto Tahun Pelajaran 2020/2021. *Language: Jurnal Inovasi Pendidikan Bahasa Dan Sastra*, *1*(1), 43–50.

Rudini, A., Ruslan, R., & Daud, F. (2021). Pengaruh Disiplin Belajar dan Motivasi Belajar terhadap Hasil Belajar IPA Peserta Didik SMP Negeri di Kecamatan Tamalate Kota Makassar. *Biolearning Journal*, *8*(2), 19–23.

Rusdinal, Rusli, R., & Meizatri, R. (2022). Pelatihan Penyusunan Lembar Kerja Peserta Didik (LKPD) Berbasis Science, Technology, Engineering, Mathematic (STEM) dan Karakter Bagi Guru Sekolah Dasar Kecamatan Batang Kapas Kabupaten Pesisir Selatan. *Abdi: Jurnal Pengabdian Dan Pemberdayaan Masyarakat*, *4*(1), 132–141.

Sanjaya, F. W. (2014). Hubungan Pemberian Insentif Non Material oleh Pimpinan dengan Semangat Kerja Pegawai pada Dinas Pendidikan Kota Solok. *Jurnal Bahana Manajemen Pendidikan*, *2*(1), 240–252.

Sarmiati, S., Kadir, Bey, A., & Rahim, U. (2019). Pengaruh Motivasi Belajar dan Dukungan Sosial terhadap Hasil Belajar Matematika Siswa Kelas VIII SMP Negeri 2 Kusambi. *Jurnal Pendidikan Matematika*, *10*(1), 77–88.

Srisiska, Ahyani, N., & Missriani. (2021). Pengaruh Disiplin dan Motivasi Kerja terhadap Kinerja Guru. *Jurnal Pendidikan Tambusai*, *5*(1), 1456–1465.

Sugiyono. (2017). *Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.

Syafaruddin, Mesiono, & Harahap, A. (2022). Implementasi Kebijakan Kepala Dinas Pendidikan dalam Peningkatan Pemahaman terhadap Kitab Suci Agama Islam di Sekolah Dasar Negeri. *Edukasi Islami: Jurnal Pendidikan Islam*, *11.01 (202*(1), 1029–1042.

Tarmizi, A. (2021). Strategi Kepala Madrasah dalam Meningkatkan Kedisiplinan Peserta Didik di MAS Al Washliyah 01 Medan. *Jurnal Malay: Manajemen Pendidikan Islam & Budaya*, *1*(4), 1–14.

Windatiningsih, D. (2019). Uji Validasi Data Debit untuk Deteksi Penyimpangan Data Studi Kasus: Das Citarum Hulu. *Jurnal Sumber Daya Air*, *15*(2), 121–136.