



**THE EFFECT OF LEARNING FACILITIES AND LEARNING MOTIVATION ON
LEARNING OUTCOMES IN NUMBER PROCESSING APPLICATION LESSON
CLASS X ACCOUNTING STUDENTS AT 48 AND 50 VOCATIONAL HIGH
SCHOOL JAKARTA**

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Abstract: The purpose of this research is to determine whether learning facilities and learning motivation affect the learning outcomes lesson of number processing application students in the X Accounting Class in 48 and 50 Vocational High School Jakarta. This research used a quantitative approach to the survey method. The population in this study were students of X Accounting Class at 48 and 50 Vocational High School Jakarta, totaling 141 students. The sampling technique used proportional random sampling of 103 students. Data collection techniques are carried out by distributing questionnaires as primary data and documentation of rapor value as secondary data. The data analysis techniques used are test requirements analysis, hypothesis test, multiple correlation coefficient test, and determination coefficient test (R²) with the help of SPSS 22 version software. The results of this research are obtained that learning facilities have a positive effect on learning outcomes, learning motivation have a positive effect on learning outcomes, and learning facilities and learning motivation have a positive effect on learning outcomes.

Keywords: Learning facilities, Learning motivation, Learning outcomes

Background

Education is a very important component of life. Even for a country, education is used as an asset for the progress of the nation. Education is considered a sector that is quite strategic for improving people's welfare. This is because education can improve the quality of human resources. Education is a learning effort with the aim of developing knowledge, potential, personality, morals, spirituality, and skills that are useful for life.

According to the Program for International Student Assessment (PISA) research from the Organization for Economic Cooperation and Development (OECD) in 2019, the following is the best quality of education in the top five countries in the categories of reading, mathematics, and science: 1) China with a score equal to reading 555, mathematics 591, and science 590. 2) Singapore with a reading score of 549, mathematics 569, and science 551. 3)



Macau with a reading score of 525, mathematics 558, and science 544. 4) Hong Kong with a reading score of 524, mathematics 551, and science 517. 5) Estonia, with reading scores of 523, mathematics 523, and science 530. Meanwhile, Indonesia is ranked 72nd with reading scores of 371; mathematics scores of 379; and science scores of 396.

From the survey results, it can be said that the quality of education in Indonesia is not good. This is also stated in the 2018 survey results released by the World Bank: in terms of the Human Capital Index (HCI), Indonesia is in 87th place out of 157 countries. The index assessment includes the influence of education and health outcomes on productivity. The World Bank also stated that Indonesia has experienced quite good improvements in access to education. However, not with the quality of education, which is still a problem. In general, the low quality of education in Indonesia is caused by several factors, such as the low quality of teachers, school management that is not well organized, student learning motivation that is still low, the administrative burden on teachers that is too much, and the inadequate infrastructure.

The quality of education can be described by the achievement of student learning outcomes. When students have good learning outcomes, it indicates that the quality of education is also good. This means that teaching and learning activities have been maximized. The factors that most often cause low student learning outcomes are learning facilities, intelligence, learning methods, and family environment (Aenon et al., 2020). Then, factors that cause low student learning outcomes were also found, including learning approaches, school environment, attitudes, motivation, and family environment (Nasri et al., 2022).

Based on experience, researchers found that many student learning outcomes, especially in the Number Processing Application subject at 48 and 50 Vocational High Schools Jakarta were incomplete. This is because students do not have adequate learning facilities. It can be seen that many students do not have personal computers and do not receive learning books from school. Apart from that, students learning motivation is still low because they do not concentrate when studying and do not doing assignments. With these obstacles, students find it difficult to participate in learning, which has an impact on achieving less than optimal student learning outcomes.

THEORETICAL FRAMEWORK

Learning Outcomes

Learning outcomes are a measure of the success of the learning process experienced by students. Students can be said to have learning outcomes if they are able to implement the lesson material they have mastered into their daily lives. According to Tirtonegoro (2011), learning outcomes are the value of learning activities in the form of symbols, letters, numbers, or sentences as a reflection of the child's achievements at a certain time. Learning outcomes are a measure of student success in achieving a goal according to the teaching program (Syah, 1995). It can be concluded that learning outcomes are values shown in the form of numbers, symbols, or letters that describe the success of student learning activities over a certain period of time. According to Bloom (1984), indicators of learning outcomes can be grouped into three domains: cognitive, affective, and psychomotor. Cognitive, namely the ability to remember something that is learned either from books, teachers, or other media. Affectiveness is an



attitude and sensitivity towards a thing or activity. Psychomotor, namely the ability to place oneself in a place as well as the ability to move the limbs (Mudjiono, 2006).

Learning Facilities

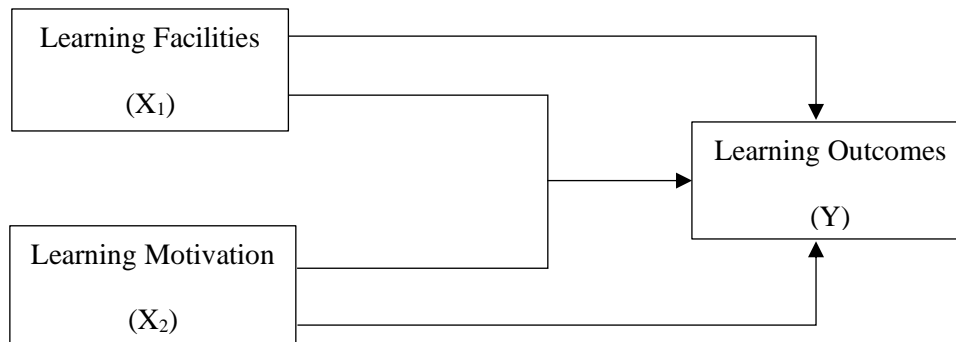
Teaching and learning activities certainly require various facilities. Not only books and blackboards but also the equipment and condition of the school building. Good learning facilities certainly have a positive impact on learning activities. According to Hariri et al. (2006), learning facilities are everything, whether moving or immovable, that is needed in the implementation of teaching and learning so that it can be effective and efficient. Learning facilities are facilities or infrastructure that must be provided for the implementation of education (Sopiatin, 2010). It can be concluded that learning facilities are facilities or infrastructure that support the implementation of learning.

According to Fathoni & A. Sobandi (2020), learning facility indicators can be classified into four categories: school buildings, study rooms, learning resources, and learning aids. First, the school building can be seen from the outside. Second, learning space can be seen in the quantity and quality of classrooms as well as the functioning of classroom and laboratory facilities. Third, learning resources are seen in the availability of learning books and the functioning of the library. Fourth, learning aids are seen as the optimization of media or learning aids.

Learning Motivation

Learning motivation is a crucial element in learning activities. Students are required to be motivated so they can participate in learning wholeheartedly and seriously. If students do not have motivation, they will appear lazy and tend to be passive when studying. According to Laka et al. (2020), learning motivation is a non-intellectual psychological condition that plays a role in increasing enthusiasm for learning. Learning motivation is a driving force for activities, namely learning (Dalyono, 2005). It can be concluded that learning motivation is something that is able to motivate students to study with the aim of gaining knowledge. Learning motivation can be generated both directly from within and outside the student. So, other people also play a role in providing and increasing motivation to learn.

According to Uno (2013), indicators of learning motivation can be classified into five categories: the desire and desire to succeed, the encouragement and need to learn, the existence of hopes and aspirations, the existence of interesting activities, and the existence of a conducive learning environment. First, the desire to succeed can be seen in active learning: not giving up, enjoying learning, not being quickly satisfied with the results obtained, and being tenacious in facing difficulties. Second, the encouragement and need to learn can be seen in having clear goals, curiosity, feedback, and interest in learning. Third, there are hopes and aspirations seen in perseverance in learning and the ability to provide concrete examples. Fourth, the existence of interesting activities can be seen from the presence of praise or rewards, the avoidance of punishment, and the desire to succeed. Fifth, a conducive learning environment can be seen in the atmosphere of the learning place and the way the teacher teaches.



Source: Processed by researchers, 2023

Picture 1. Conceptual Framework

Based on the theoretical framework above, the hypothesis used is:

H1: Learning facilities have a positive effect on learning outcomes.

H2: Learning motivation has a positive effect on learning outcomes.

H3: Learning Facilities and Learning Motivation Have a Positive Effect on Learning Outcomes

METHOD

This research uses a quantitative approach. A quantitative approach means trying to process scientific knowledge and combine it rationally and empirically by proposing hypotheses (Syahrums & Salim, 2012). Quantitative research analysis emphasizes numerical data, which is then processed based on statistical methods (Hardani et al., 2020). Meanwhile, the method used is a survey. The survey method is research that aims to obtain facts about a phenomenon and find factual information in various fields, whether social, economic, or political (Nazir, 2013).

Population is a generalized area of subjects or objects with certain characteristics and qualities determined by the researcher, with the aim of studying and drawing conclusions about the population (Garaika & Darmanah, 2019). In this research, the population used was students in class. In detail, class X Accounting 48 VHS consists of 69 people and 50 VHS consists of 72 people. The sample is a component of the characteristics and number of the population. The sample selection in this study used a proportional random sampling technique with the aim that all populations have the same opportunity to be used as samples. The method for determine the sample size uses the Isaac and Michael formula, based on calculations the sample is 103 people.

This research uses primary and secondary data sources. Primary data is data obtained directly from the first source, either at the research site or research object (Nofianti & Qomariah, 2017). Meanwhile, data collected from various sources, such as books, notes, articles, government reports, company financial reports, and so on, is called secondary data (Sujarweni, 2014). Primary data is needed to process the learning facility variables (X₁) and learning motivation (X₂), which will be obtained by distributing questionnaires to class X Accounting students at 48 and 50 Vocational High Schools Jakarta. Meanwhile, secondary data



is needed to process the learning outcome variable (Y), namely in the form of a list of report card grades in the number processing application subject. The data analysis techniques uses test requirements analysis, hypothesis test, multiple correlation coefficient test, and determination coefficient test (R²) with the help of SPSS 22 version software.

RESULT

Test Requirements Analysis

Normality Test One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		103
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	3.32056974
	Most Extreme Differences	Absolute .084 Positive .059 Negative -.084
Test Statistic		.084
Asymp. Sig. (2-tailed)		.067 ^c

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

Source: Processed by SPSS 22

It can be seen that the value of the unstandardized residual asymptotic sig. (2-tailed) is $0,067 > 0,05$. These results indicate that the distribution of data for the variable learning outcomes, learning facilities, and learning motivation is normal.

Linearity Test of Learning Facilities with Learning Outcomes

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Learning Outcomes * Learning Facilities	Between Groups	(Combined) Linearity	584.648	36	16.240	1.484	.082
		Deviation from Linearity	134.945	1	134.945	12.334	.001
			449.703	35	12.849	1.174	.283
Within Groups			722.110	66	10.941		
Total			1306.757	102			

Source: Processed by SPSS 22



It can be seen that the Deviation from Linearity value is $0,283 > 0,05$. Thus, these results indicate that there is a linear relationship between learning facilities and learning outcomes.

Linearity Test of Learning Motivation with Learning Outcomes

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Learning Outcomes * Learning Motivation	Between Groups	(Combined)	565.900	45	12.576	.968	.542
		Linearity	101.814	1	101.814	7.833	.007
		Deviation from Linearity	464.087	44	10.547	.811	.763
	Within Groups		740.857	57	12.997		
Total			1306.757	102			

Source: Processed by SPSS 22

It can be seen that the Deviation from Linearity value is $0,763 > 0,05$. Thus, these results indicate that there is a linear relationship between learning motivation and learning outcomes.

Hypothesis Test

T Test
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	74.091	3.544		20.904	.000
Learning Facilities	.083	.031	.260	2.672	.009
Learning Motivation	.045	.022	.199	2.047	.043

a. Dependent Variable: Learning Outcomes

Source: Processed by SPSS 22

It can be seen that the significance value for learning facilities is $0,009 < 0,05$ and the t count value is $2,672 > t$ table is 1,983. So, it is concluded that H_0 is rejected, which means that learning facilities influence learning outcomes. Then, the significance value for learning motivation is $0,043 < 0,05$ and t count value is $2,047 > t$ table is 1,983. Thus, it is concluded that H_0 is rejected, which means that learning motivation affects learning outcomes.



Model Feasibility Test (F Test)

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	182.087	2	91.043	8.095	.001 ^b
Residual	1124.671	100	11.247		
Total	1306.757	102			

- a. Dependent Variable: Learning Outcomes
- b. Predictors: (Constant), Learning Motivation, Learning Facilities

Source: Processed by SPSS 22

It can be seen that the significance value of the two independent variables for the dependent variable is $0,001 < 0,05$ and the F count value is $8,095 > F$ table is 3,08. Thus, it is concluded that learning facilities and learning motivation influence learning outcomes.

Multiple Correlation Coefficient Test

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.373 ^a	.139	.122	3.354	.139	8.095	2	100	.001

- a. Predictors: (Constant), Learning Motivation, Learning Facilities

Source: Processed by SPSS 22

It can be seen that the significance value of Sig. F. Change is $0,001 < 0,05$. Thus, the variables of learning facilities and learning motivation are considered to be correlated with learning outcomes. Regarding the correlation relationship between the independent variable and the dependent variable, it is described in the R value, which is equal to 0,373. So, it can be concluded that the two independent variables correlate with the dependent variable.

Determination Coefficient Test (R²)

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.373 ^a	.139	.122	3.354

- a. Predictors: (Constant), Learning Motivation, Learning Facilities

- b. Dependent Variable: Learning Outcomes

Source: Processed by SPSS 22



It can be seen that the value of R square is 0,139. These results indicate that the effect of the independent variable simultaneously on the dependent variable is 13,9%.

DISCUSSION

The Effect of Learning Facilities on Learning Outcomes

Based on the results of the tests that have been carried out, it can be concluded that H0 is rejected and H1 is accepted, which means that the hypothesis that learning facilities have a positive effect on learning outcomes is accepted. This can be seen from the t count value is $2,672 > t$ table is 1,983. Apart from that a significance value of $0,009 < 0,05$ which means that there is a significant influence between learning facilities and student learning outcomes. Then, based on the results of the linearity test using deviation from linearity, it can be seen that the sig. is $0,283 > 0,05$. This proves that there is a linear relationship between learning facilities and the learning outcomes of class X Accounting students at 48 and 50 Vocational High Schools Jakarta.

The test results above are the same as the research conducted by A. D. Rahmawati et al. (2021), which states that learning facilities have an influence on learning outcomes. It can be seen that the t count value is $2,666 > t$ table is 2,120 with a significance value is 0,021. Then, in research conducted by Mandey (2021), it also shows that learning facilities have an influence on learning outcomes. It can be seen from the results of the t count value is $4,400 > t$ table is 2,018 with a significance value is 0,000. The research conducted by Muhammad et al. (2019) also stated that learning facilities have an influence on learning outcomes. It can be seen from the results of the t count value is $2,15 > t$ table is 2,00.

The Effect of Learning Motivation on Learning Outcomes

Based on the results of the tests that have been carried out, it can be concluded that H0 is rejected and H2 is accepted, which means that the hypothesis that learning motivation has a positive effect on learning outcomes is accepted. This can be seen from the t count value is $2,047 > t$ table is 1,983. Apart from that a significance value is $0,043 < 0,05$ which means that there is a significant influence between learning motivation and student learning outcomes. Then, based on the results of the linearity test using deviation from linearity, it can be seen that the sig. is $0,763 > 0,05$. This proves that there is a linear relationship between learning motivation and the learning outcomes of class X Accounting students at 48 and 50 Vocational High Schools Jakarta.

The test results above are the same as research conducted by Winata & Friantini (2019), which states that learning motivation has an influence on learning outcomes. It can be seen from the results that the significance is $0,000 < 0,05$. Apart from that, research conducted by Zulvadri & Safitri (2019) also states that learning motivation has an influence on learning outcomes. It can be seen from the R square results of 0,640, which means 64% of learning motivation contributes to student learning outcomes. Research by Giawa et al. (2020) also shows that learning motivation has an influence on learning outcomes. It can be seen from the results of the t count value is $5,235 > t$ table is 1,697 with a significance value is 0,000.



The Effect of Learning Facilities and Learning Motivation on Learning Outcomes

Based on the results of the normality test that has been carried out, the unstandardized residual asymptote value can be determined. sig. is $0,067 > 0,05$, which means that the distribution of data on learning outcomes, learning facilities, and learning motivation is normal and influences each other. Then, the results of the model feasibility test (F test) show F count value is $8,095 > F$ table is $3,08$. Thus, it can be concluded that H3 is accepted, which means that learning facilities and learning motivation have a positive effect on learning outcomes. Then, the results of the multiple correlation coefficient test that has been carried out produce a significance value is $0,001 < 0,05$, indicate that the variables of learning facilities and learning motivation have a correlation with learning outcomes. Then, for the coefficient of determination test results (R2), an R square value is $0,139$, which means that 13,9% of learning facilities and learning motivation have a positive and significant effect on learning outcomes.

Several research also stated the same test results, those carried out by D. I. Rahmawati (2021). It can be seen from the results of the unstandardized residual asymptote. sig. is $0,200 > 0,05$ and the F count value is $859,898 > F$ table is $3,34$. Then, research conducted by Asmadi (2021) also stated that learning facilities and learning motivation have a positive influence on learning outcomes. It can be seen from the results of the unstandardized residual asymptote. sig. is $0,849 > 0,05$ and the F count value is $9,027$. The research conducted by Zakaria et al. (2020) also shows that learning facilities and learning motivation have an influence on learning outcomes. It can be seen from the results of the F count value is $9,369 > F$ table is $3,10$.

CONCLUSION

Based on the results of testing the research data that has been explained regarding the influence of learning facilities and learning motivation on learning outcomes in the number processing application subject for class X accounting students at 48 and 50 Vocational High Schools Jakarta, the following conclusions can be obtained:

1. Learning facilities have a positive relationship and influence student learning outcomes. This indicates that student learning outcomes will increase when assisted by adequate learning facilities that are able to support the learning process. Adequate learning facilities can be reflected in the good condition of the school building, the availability of classrooms and laboratories, and the presence of complete learning resources and learning aids.
2. Learning motivation has a positive relationship and influences student learning outcomes. This indicates that student learning outcomes will increase if students have high learning motivation. High learning motivation can be reflected in the desire to succeed, such as being active when studying; the encouragement and need to learn, such as having curiosity; the hope and ideals, such as being diligent in studying; and the existence of interesting learning activities, such as giving rewards to active students. or get the highest score, as well as a conducive learning environment.
3. Learning outcomes are positively and significantly influenced by learning facilities and learning motivation. Based on the results of tests that have been carried out, it can be proven that learning facilities and learning motivation have an important role in the learning process, especially in achieving student learning outcomes. Students can achieve success if they have the facilities.



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