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THE IMPACT OF INDEPENDENT LEARNING ON STUDENTS' ACCOUNTING LEARNING OUTCOMES AT VOCATIONAL HIGH SCHOOL

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Abstract

The independence of student learning in recent years was discussed in several articles. Through the development of an independent attitude in learning, students can diagnose learning difficulties and find the right solution to solve them. This study was aimed at finding out how the influence of learning independence on students' accounting learning outcomes. The type of research used is ex-post facto quantitative research. The population of the research is all students of class XI of Public Middle School in the city of Yogyakarta, with a total of 156 students. The instruments used were questionnaires and multiple-choice questions (MCQs). Validity and reliability of the questionnaire were measured using Confirmatory Factor Analysis (CFA) through the Lisrel 8.80 application, while the validity and reliability of MCQs were measured using Rasch approach through the Quest application. Several questionnaires in the form of questionnaires and documentation were used on the testing instrument. The number of instruments for learning independence was 19 statements. The closed statement form used a Likert scale consisting of five alternative answers. The number of MCQs is 18 questions. There were 18 valid statements found after going through the calculation of validation, reliability, difficulty level of the question, and distinguishing power. Simple regression was used for the data analysis technique. The results of the study show that the learning independence variable has a significant and positive influence. It can be seen from the learning independence variable, which has a value of 2.187 and a significance value smaller than 0.05 (0.030 <0.05).

Keywords: *independent learning, accounting, learning outcomes*

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INTRODUCTION

Learning outcomes are the achievement of students' success obtained at school. Vocational High School (*Sekolah Menengah Kejuruan* or SMK) is one form of secondary education. Based on the Government Regulation No. 17 of 2010, article 76 paragraph 2, education in vocational high schools aims to improve the skills of students in facing all challenges of the world of work by becoming skilled and professional workers along with the progress of science and technology.

It is in line with curriculum 2013 that has been implemented for several years. In the revised curriculum 2013, students are expected to be able to be independent and know what has been learned, what is being learned, and what must be learned. In curriculum 2013, special attention was placed on structuring mindset and governance, deepening the material and expanding the material, strengthening the process, and adjusting the burden borne by students. It is hoped that with the implementation of the curriculum 2013, schools can produce competent and independent human resources.

To achieve good learning outcomes, instilling students' independent nature in learning is needed. O'Rourke and Carson (2010, p. 83) inform that "Learner autonomy is that learning has to start from the learner's existing knowledge." The effect of learning independence is important to measure the maximum achievement of learning outcomes, because, with the independence in learning, students will have broad insights and initiatives to carry out the learning process in school. According to Schunk (2012, p. 122), learning independence is the ability of students to exercise self-control and self-observation and to evaluate their cognitive processes personally. Independence will encourage students to achieve and be creative. Arista and Kuswanto (2018, p. 3) add that "learning independence is defined as a form of awareness that arises from within themselves who want to receive information, manage it, and connect one part of information with another." Through developing independent attitudes in learning, students can diagnose learning difficulties and find the right solution to solve the difficulties. It will certainly become a positive influence on students themselves in terms of mastering the concept of learning.

Based on the results of observations and interviews with accounting subject teachers in class XI of Financial Accounting in Vocational High Schools in the city of Yogyakarta, the independence of student learning is still not optimal. It can be seen from the score of the mid-semester examination obtained by students in financial accounting subjects in material receivables can be said to be less good. It is said to be not good because it shows the majority of 65% on average students get grades ranging from 60 to 75 with minimum completeness criteria (*Kriteria Ketuntasan Minimum* or KKM) 75 as the lower limit of competencies that must be passed. Meanwhile, students who score 75 to 100 can be categorized very little, which is equal to 35%.

In general, students who are not independent in accounting learning can be seen when students still lack confidence in their ability to do the tests. Independence of learning can also be seen from the daily learning habits of students, such as the way students plan and do learning. Thus, students' high learning independence is essential for improving accounting learning outcomes because it will affect the creation of self-enthusiasm for learning. Students who lack learning independence are characterized by not doing assignments and paying less attention to the teacher when learning takes place, such as daydreaming and chatting with friends. Therefore, students have not applied a routine, effective, and regular learning strategy.

According to van der Stel and Veenman (2014, p. 117), students must act as active students with their own learning responsibilities. Students must also be able to plan their learning activities and implement them in a systematic and orderly way to monitor and evaluate student learning itself. Students are also still less independent in learning, so their learning achievements are below the minimum standards (Clark & Lyons, 2011, p. 293). From the above statement, it can be assumed that independence in learning is something that requires special attention in learning.

Kyndt, Gijbels, Grosemans, and Donche (2016, p. 3) state that learning also refers to an activity that is structured in terms of time-space, goals, and support. High-level learning outcomes require students to improve, recognize, and understand concepts (Van der Kleij, Feskens, & Eggen, 2015, p. 5). Further, it is

followed by the statement of Fatkhurrokhman, Leksono, Ramdan, and Rahman (2018, p. 166) that learning is an activity carried out by teachers to change students to be better.

Based on the statements as mentioned earlier, it can be concluded that learning is an effort that is consciously carried out by students to change, from being unknowledgeable into knowledgeable, from not performing the right attitude to performing the right attitude, and from being unskilled to being skilled in doing things. Henderson and Trede (2017, p. 73) believe that results are an essential component of the collaborative governance framework as a feedback mechanism to ensure the proper functioning of structures and processes. According to Kyndt et al. (2016, p. 4), there is a great value in the glitter of visible learning outcomes. Moreover, Page, Meehan-Andrews, Weerakkody, Hughes, and Rathner (2017, p. 46) state that learning outcomes are reflected in the proportion of student mastery. Then, according to the Engineering Accreditation Council (2007, p. 24), the results are statements that explain what students must know, understand, and do after the completion of the study period.

According to Sjukur (2013, p. 372), learning outcomes are a final assessment of the process and introduction that has been done repeatedly and will be stored for a long time or will not even disappear forever, because the learning outcomes participate in forming the individual person always to want to achieve better results. Thus, they will change their way of thinking and produce better work behavior. From this opinion, it can be concluded that learning outcomes are improvements in the form of achievements and behavioral changes obtained by students after participating in teaching and learning activities in schools.

Accounting learning results are the results obtained by students after taking accounting subjects in school, the results of which can be in the form of student changes as indicated by the level of ability of students who experience changes and achievements that have increased. With changes or improvements in learning outcomes in accounting subjects, learning outcomes have been achieved as expected.

Self-reliance, according to Medlin and Butler (2018, p. 68), refers to teaching itself and also states that independent means learning the best things themselves. Independence in learning is something that requires special attention in learning. According to Boeree (2013, p. 260), independence is not dependency. Independence is also the impact of learning (Birnbaum & Schmidt, 2015, p. 7).

The term independence of learning is related to several other terms: (1) self-regulated learning, (2) self-regulated thinking, (3) self-directed learning, (4) self-efficacy, and (5) self-esteem. The definition of the five terms above is not exactly the same but has several similarities in characteristics (Prayekti, Budiman, & Budi, 2016, p. 144). Arista and Kuswanto (2018, p. 3) explains that independence of learning can be interpreted as a form of awareness that arises from within themselves who want to receive information, manage it, and connect one part of information with another. Then, Mulyono (2017, p. 690) adds that "learning independence is a person's perception or view of himself, which is formed through experience and interaction with the environment and is influenced by people who are considered important." Mukhlis, Japar, Maksum, and Adiansha (2018, p. 1033) state that learning independence is an attitude and behavior in a person to carry out independent learning activities based on his own motivations and is the result of his own experience and training without depending on others to master certain material, so that it can be used to solve the problem at hand.

By increasing student learning independence, the better the independence of learning will have an impact on the ability and learning outcomes, and vice versa. Prayekti et al. (2016, p. 146) also state that someone who has an independent attitude must be able to actualize optimally, not relying on others. Therefore, changes in someone is the result of his daily experience and independent practice to not depend on others. It is in line with Fatihah (2016, p. 200) who believes that learning independence is a person's ability to carry out learning activities with full confidence and responsibility for their actions. Then, according to Aini and Taman (2012, p. 54), learning independence is a learning activity that is carried out by students of their own volition and have high self-confidence in completing their tasks.

Independence of learning, according to Aliyyah, Puteri, and Kurniawati (2017, p. 126),

is an active learning activity that is built with the knowledge or competence that is owned, both in determining the time of the study, place of learning, learning, and evaluation of learning done by the students themselves. Then, Setyowati (2018, p. 25) adds that learning independence can make students have initiative in learning, search for learning methods, carry out learning processes, practice effectiveness in learning, have independence in making decisions, working on tasks, consequences after doing assignments, repeating lessons, recalling lessons, remembering lessons, record important things, ask friends for help, and have the responsibility for doing tasks.

In-depth, there are several characteristics of learning independence that is proposed by Prayekti et al. (2016, p. 147), namely: (1) being able to think critically, creatively and innovatively; (2) being not easily affected by the opinions of others; (3) not running from or avoiding problems; (4) solving problems with deep thinking; (5) solving problems by him/ herself without asking someone for help; (6) not feeling inferior at anytime, even when he/ she has to be different from others; (7) trying to work with perseverance and discipline; (8) responsible for his own actions.

Fatihah (2016, p. 200) insists that the characteristics of learning independence are indicated by the ability to solve problems faced with behavior. With changes in behavior, children have an increase in thinking, learning to be independent without relying on help from others and not relying on learning only from the teacher, because the teacher is not the only source of knowledge, and can use shared resources and media to learn. Learning independence can be seen in students' daily learning habits, such as how to plan and do learning (Syahputra, 2017, p. 383).

The development of independence in students makes students able to do everything according to their abilities optimally and do not rely on others. Students who have high learning independence will try to complete all the exercises or assignments given by the teacher with their own abilities. If students get into trouble, then they will ask questions or discuss the trouble with friends, teachers, or other parties who are more competent in overcoming these difficulties (Fatihah, 2016, p. 200).

RESEARCH METHOD

This research is an ex post facto study with a quantitative approach. This research was conducted at State Vocational Schools in Yogyakarta City, with a population of 156 students. The variables used in this study are learning independence and student accounting learning outcomes. Two measuring instruments, namely tests and non-tests, were used in data collection. The test instrument employs multiple-choice questions, while the non-test instruments are in the form of questionnaires and documentation. The number of instruments for learning independence questionnaire is 19 statements. The form of the statement is closed statements using a Likert scale consisting of five alternative answers. Meanwhile, the number of multiple-choice questions are 26 questions.

Before the instrument was used as a data retrieval tool, first, the data were tested for validity and reliability. The Quest application using the Rasch approach was used to test the validity of the test. Determination criteria are valid if INFIT MNSQ is in the range of 0.77 <MNSQ <1.30. Thus, out of 26 questions that were tested, all of them are entirely declared valid, followed by reliability testing, which obtains values of 0.97 in high criteria. It can be seen in Figure 1.

Next, the non-test instrument validity was tested using Confirmatory Factor Analysis (CFA) using the Lisrel 8.80 application. Of the 19 questions tested, nine valid statements were obtained. It can be seen in the chart shown in Figure 2.

From the reliability test statement, a value of 0.713 is obtained. This number is obtained from calculations in the application of SPSS Version 20.

Data from the processed questionnaire was followed by an analysis of each variable to answer the research question. Previously, the analysis prerequisite test was conducted, consisting of a normality test, linearity test, and multicollinearity test. Then, it was followed by a simple-regression hypothesis test.

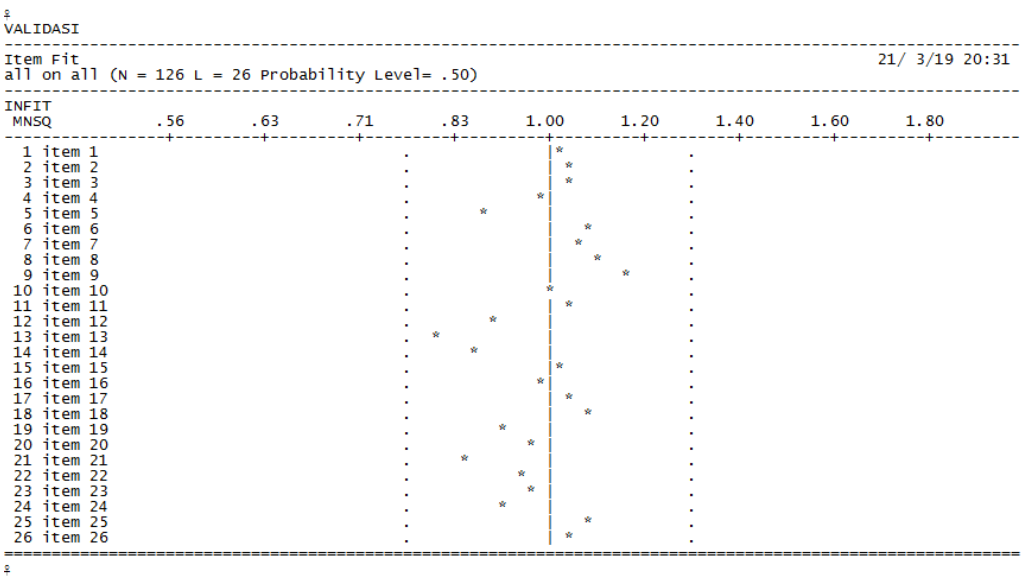

Figure 1. The Validity Results of Test Instruments

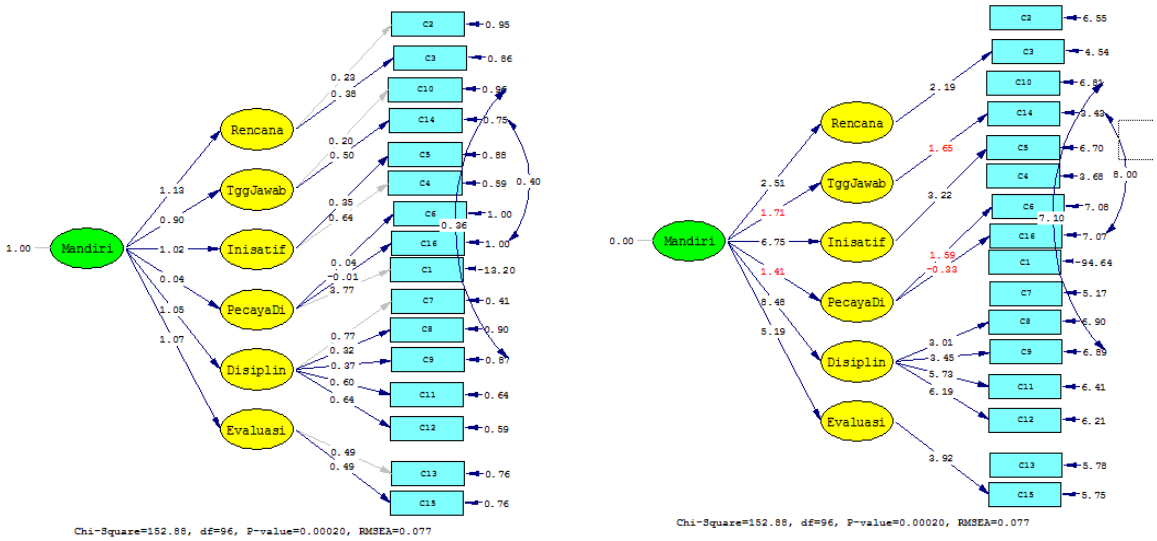

Figure 2. The Validity Results of Non-Test Instruments

RESULTS AND DISCUSSION

The data of 159 respondents in this study are generally described in Table 1. It can be seen that the 159 respondents were dominated by female students as many as 154 students or 96.9% and male students as many as five students or 3.1%.

Table 1. Gender

Gender	Number	(%)
Male	5	3.1
Female	154	96.9
Total	**159**	**100**

Source: Data processed in 2019

Table 2. Age

Age	Number	(%)
16	68	42.8
17	90	56.6
18	1	0.6
Total	**159**	**100**

Source: Data processed in 2019

Based on Table 2, it is known that research respondents consisted of 17-year-old students as many as 90 students or 56.6%, 16-year-old students as many as 68 students or 42.8%, and 18-year-old students as many as one person or equal to 0.6%. Meanwhile, Table

3 shows that there are 93 respondents from Yogyakarta City or 58.5%, 30 students or 18.9% from Sleman Regency, and 36 students or 22.6 % are from Bantul Regency.

Table 3. Residential Districts

Sub-district	Number	(%)
Yogyakarta City	93	58.5
Sleman	30	18.9
Bantul	36	22.6
Total	**159**	**100**

Source: Data processed in 2019

Table 4. Student Father's Latest Education

Educational level	Number	(%)
Not completed primary school	-	-
Elementary school	29	18.2
Junior high school	32	20.1
Senior high school	83	52.2
College	15	9.4
Total	**159**	**100**

Source: Data processed in 2019

Table 4 shows that the last education level of the students' fathers was dominated by high school/equivalent graduates, namely 83 people or 52.2%, followed by 32 junior high school graduates or 20.1%, 29 elementary school graduates or 18.2 %, while college graduates are only 15 people or 9.4%. In Table 5, it was found that high school/equivalent graduates dominated the last education of students' mothers, namely 68 people or 42.8%, followed by 37 junior high school graduates or 23.3%, 32 elementary school graduates or 20.1%, while college graduates are only 21 people or 13.2%, and one person does not graduate at elementary school level, or 0.6%.

Table 5. Student Mother's Latest Education

Educational level	Number	(%)
Not completed primary school	1	0.6
Elementary school	32	20.1
Junior high school	37	23.3
Senior high school	68	42.8
College	21	13.2
Total	**159**	**100**

Source: Data processed in 2019

Data on learning independence variables were taken from a questionnaire consisting of nine statement items. Based on the results of the research data, the highest variable X score is 44, the lowest score is 25, the mean is 34.21, and the standard deviation obtained is 3.969. Thus, the categorization of learning independence variables is presented in Table 6.

Table 6. Variable Categorization of Independence Learning

Category	Score Interval	f	(%)
High	X≥38.17	22	13.8
Medium	38.17≤X<30.24	113	71.1
Low	X < 30.24	24	15.1
Total		**159**	**100**

Source: Data processed in 2019

Based on Table 6, it can be seen that the result of assessment on the respondents in terms of the learning independence variables are in the moderate category for 113 students or equal to 71.1%, 22 students or equal to 13.8% are in the high category, and 24 students are in a low category or equal to 15.1%.

Prerequisite Test for Analysis

The prerequisite test analysis is carried out before testing the hypothesis. If the test for each variable meets the analysis prerequisites, then the test can proceed. In this prerequisite, the test includes a normality test, linearity test, and multicollinearity test. The normality test is seen from the significance of the two-tailed test from the Kolmogorov-Smirnov test, at a significance level of 0.05.

Table 7. Result of Normality Test

One-Sample Kolmogrov-Smirnov Test		
		Unstand. Residual
N		159
Normal Parameters[a]	Mean	0.000
	Std. Deviation	9.562
Most Extreme Differences	Absolute	0.105
	Positive	0.070
	Negative	-0.105
Kolmogrov-Smirnov Z		1.324
Asymp. Sig. (2-tailed)		0.60

a. Test distribution is Normal
b. Calculated from data
Source: Data processed in 2019

From Table 7, it can be seen that based on the One-Sample Kolmogrov-Smirnov Test table on Asym. Sig. (2-tailed), a number of

0.60 is obtained. It means that the value of Asym. Sig. (2-tailed) is greater than the significant value of 0.05. Therefore, the data are declared normal, and it can proceed to further data processing.

After the normality test, the next prerequisite test is the linearity test. Two variables are said to have a linear relationship if the linearity coefficient seen in the Linear Deviation form is Sig (P)> 0.05.

Based on Table 8, the Deviation from Linearity value is 0.459. This value is greater than the significant value of 0.05. Thus, the data is declared linear.

The classic assumption of multicollinearity is the correlation between independent variables in the regression model. The rule for the Multicollinearity test is that the Tolerance value is <0.1, and the VIF value is> 10.

Based on Table 9, the Tolerance value is 1, and the VIF is 1. The Tolerance value is greater than 0.1, and the VIF value is smaller than 10. It means that the data passed the multicollinearity test.

Hypothesis Testing

Based on the results of a simple linear regression test in Table 10, it is found that the learning independence variable had a t-count value of 2.187 and a significance value smaller than 0.05 (0.030 <0.05). It indicates that learning independence had a positive and significant effect on students' accounting learning outcomes.

Table 11 shows that the results of the Adjusted R Square test in this study obtained a number of 0.23. It means that the influence of learning independence on student learning outcomes is 23%, while other variables influence the remaining 77%.

Table 8. Result of Linearity Test of Learning Independence with Learning Outcomes

ANOVA Table

			F	Sig.
(Y)*(X3)	Between Groups	(Combined)	1.203	.264
		Linearity	4.786	.030
		Deviation from Liniarity	1.004	.459

Source: Data processed in 2019

Table 9.Result of Multicolliniearity Test

Coefficients[a]

		Tolerance	VIF
1	(Constant)		
	Learning Independence	1.000	1.000

Source: Data processed in 2019

Table 10. Results of Simple Linear Regression Analysis

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	79.792	6.623		12.048	.000
	Learning Independence (X)	.421	.192	.172	2.187	.030

a. Dependent Variable: Learning Outcomes (Y)

Source: Data processed in 2019

Table 11. Determination Coefficient Test Results (R^2)

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.172[a]	.030	.023	9.593

a. Predictors: (Constant), Learning Independence (X)

b. Dependent Variable: Learning Outcomes (Y)

The results of this study are supported by Mulyono, Asmawi, and Nuriah (2018) who state that there is an interaction effect between learning and independent learning models on students' mathematics learning outcomes; after controlling students' initial abilities, the students' mathematics learning outcomes using learning models with learning independence is higher than the result of students' learning using a facilitator model. It is seen from the analysis of the t-test, which is greater than t table, which is equal to 4.90> 2.39. Moreover, the average value obtained when students' learning independence is high is 73.18, when compared to student facilities which are only 55.97. Therefore, it can be concluded that students who have a high level of learning independence will automatically have a good influence on their learning outcomes.

A research conducted by Kharismawan, Haryani, and Nuswowati (2018) found that the level of students' learning independence increases with learning Problem-Based Learning. The instrument used in this study was a questionnaire with a Likert scale. Then, the results of the analysis of the questionnaire found that students' learning independence increased. The characteristics used in this study are as follows: (1) students are able to think critically, creatively and innovatively; (2) students are not easily influenced by the opinions of others; (3) students do not run or avoid problems; (4) students solve problems with deep thinking; (5) when facing a problem, students solve it by themselves without asking for help from others; (6) students do not feel inferior when they must become different from others; (7) students strive to work diligently and discipline; (8) students are responsible for their own actions.

Further, Syahroni, Dewi, and Kasmui (2016) conducted a quasi-experimental study with a control group design that was not equivalent to learning independence characteristics, including students could determine their approach to learning optimally and efficiently, are responsible for decisions that had been taken, and are able to work with other people to expand their knowledge. Based on the results of a sudden observation of student independence, it shows that the average score of independent learning was 85.47 for an experimental class, while the control class scored 69.94.

A research conducted by Saefullah, Siahaan, and Sari (2017) examines the relationship between learning independence attitudes and student learning achievement. The results of the study show that there is a positive and significant correlation between attitudes of learning independence and learning achievement. There are six indicators used in this study, namely the independence of others, having self-confidence, being disciplined, having a sense of responsibility, being based on their own initiative, and exercising self-control. Based on the results of the calculation of the correlation coefficient r = 0.64, where r table 5% is found 0.355, so that the r count> r table (0.64> 0.355), there is a positive relationship between the attitudes of learning independence and learning achievement. The contribution of students' independence attitude is 40.96%. Then, Hasibuan, Saragih, and Amry (2018) find that students' learning independence increases after learning to use learning tools based on realistic mathematical approaches that have been developed. It is concluded based on the students' response given in experiment II, which has a high category, that is equal to 92.87%.

Students' learning independence to being able to understand the material, and working on the questions given by the teacher are some of the characteristics of students' positive learning independence. In addition, students who have positive learning independence also have the responsibility to complete all tasks assigned to them. Therefore, positive learning independence is very important for every student to have so that students' learning outcomes are said to be good.

CONCLUSION

Students' learning independence has a positive and significant effect on student accounting learning outcomes. It means that the higher the students' learning independence, the higher the accounting learning outcomes of students.

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