

## The Correlation of Learning Motivation with Critical Thinking Skills for Accounting Learning

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### Abstract

*The research objective was to examine the correlation between learning motivation and critical thinking skills. This research design was descriptive correlation research with a quantitative approach. Additionally, the research sample consisted of 72 students. The data collection technique used learning motivation questionnaires and a critical thinking ability test. The data were analyzed using Pearson product-moment correlation analysis and a simple regression test assisted by IBM SPSS 20. The results of the correlation test obtained  $r_{xy} = 0.367$ . Therefore, it can be interpreted that the correlation category was at a low correlation level. Furthermore, using a simple linear regression test, the researchers got an R-square value = 0.135. It meant that learning motivation contributed 13.5% to critical thinking skills, with a significance through  $t_{count} (3,300) > t_{table} (1,994)$ . The results showed that there was a significant correlation between critical thinking skills with learning motivation.*

### Keywords

learning motivation; critical thinking skill; accounting



### I. Introduction

In the development of the world of education, especially after the rolling reforms, new phenomena have arisen in educational institutions, which are schools that use the term Integrated Islamic Schools (Titik, 2010: 42). The school is essentially aimed at helping parents teach good habits and add good character, also given education for life in society that is difficult given at home. Thus, education in schools is actually part of education in the family, which is also a continuation of education in the family (Daulay in Ayuningsih, W. et al. 2020).

Education is the foundation of a successful career, financial freedom, the ability to think and reason critically and to make informed decisions. Without education we will be limited to perform tasks and we will be ignorant to the things that are happening in and around our surrounding, and according to Martin Luther King, a people without knowledge is like a tree without roots. For education to be of great value, curriculums should be implemented. (Philips, S. 2020)

One of the life skills that need to be developed in National Curriculum 2013-based learning is critical thinking skills. These skills are in line with 21st-century competencies. Competencies needed for students to face challenges are presented through the 4Cs, namely collaboration, communication, critical thinking, and creative thinking (Erdogan, 2019; Dede, 2021). Therefore, the learning process needs to focus on the right way to form students' critical thinking skills. When faced with complex problem situations, students will be able to use their thinking skills well in making decisions to solve these problems. Critical thinking is a cognitive ability along with cognitive and intellectual skills needed to effectively identify, analyze, and evaluate decision results in obtaining logical and proven decisions (Bassham et al., 2010). Critical thinking skills will provide many benefits for

students in increasing scientific insight and training their intelligence in overcoming the problems they face.

In reality, critical thinking skills in the learning process have not been formed optimally in student implementation. The students' critical thinking skills that are not optimal become a problem in education both locally and nationally (Widana et al., 2018). Additionally, TIMSS 2015 International Results in Science showed the acquisition of an average score of 397 from an average international score of 500, which was in the 44th position of 49 participating countries. Following the Trends in International Mathematical and Science Study (TIMSS), it was known that student achievement was in a low category. Students usually know the basic facts but cannot communicate, relate to various topics, and apply concepts in problem-solving (Hadi & Novaliyosi, 2019). Field observations showed that students still had difficulty working when faced with questions that required in-depth analysis of a problem. However, in the realm of knowledge, students did not experience difficulties when working on them. The question-making process was still limited to knowledge, understanding, and application in the low-order thinking skills category. Besides, teachers were not accustomed to applying question-making in the analysis, synthesis, and evaluation, which included high-order thinking skills in question-making.

Due to the importance of students' critical thinking skills development in the learning process, a teacher must involve students in the critical thinking process. Critical thinking skills can undoubtedly be improved through questions to stimulate students' critical thinking skills. According to Basri & As'ari (2018), a teacher must design or develop practice questions specifically to build students' critical thinking skills. The question-making development is not only limited to knowledge and understanding but also the development of C4 - C6, which are included in the realm of high order thinking skills such as critical thinking skills.

In addition to making questions develop, effective solutions are also needed to improve critical thinking skills. Solutions are not limited to external factors such as question developers. However, it is necessary to involve internal factors, such as learning motivation, to stimulate the participants' critical thinking skills and creativity (Bhushan, 2014). Learning motivation is a psychological but non-intellectual factor that comes from within a person and plays a role in growing passion, pleasure, and enthusiasm in learning (Sardiman, 2014). Motivation is the overall driving force to create more meaningful learning activities. Learning motivation is the driving force in students to be involved in every learning process, which results in changes in students' cognitive, affective, and psychomotor abilities (Suhana, 2014). Students with high learning motivation may have better critical thinking skills and vice versa. Furthermore, students with low learning motivation allow low critical thinking skills. As stated by Putri et al. (2018), learning motivation positively affected improving students' critical thinking skills. Based on this opinion, it can be said that learning motivation can improve the quality of learning activities. Learning motivation can make students take part in learning responsibly and thoughtfully. Therefore, students will feel challenged to find the best solution when faced with problems. Students who have learning motivation will be easy to follow the learning process and stages in developing critical thinking skills through giving questions that require in-depth analysis. With their learning motivation, the efforts to achieve their learning goals will be more intense. It was in line with the research results stated that the stronger the learning motivation possessed by students, the better the students' critical thinking skills (Mulyati et al., 2019). Therefore, it is necessary to pay attention to learning motivation which plays a vital role in the learning process and increases students' critical thinking skills. Based on the description above, in this research, the researchers sought to

determine the correlation between learning motivation and students' critical thinking skills in accounting learning.

## II. Research Method

This research design was a description of the correlation with a quantitative approach. This research objective was to examine the correlation between learning motivation and students' critical thinking skills in learning financial accounting. The research subjects were students of class XI-AK, totaling 72 students. Questionnaires and tests carried out data collection techniques. The research instrument used a test of financial accounting critical thinking skills in an essay consisting of three questions and a non-test in a learning motivation scale consisting of 21 statements. The research instrument has been tested for validity and reliability before being used for further testing. To test the hypotheses, the research data analysis used the *Pearson product-moment* correlation analysis technique and simple linear regression analysis with the help of IBM SPSS Statistics 20. Decision-making was done by comparing the significance value with alpha ( $\alpha$ ) 0.05 or based on the  $t_{\text{count}}$  value. Furthermore, the interpretation of the closeness level of the correlation between variables can be seen  $n$  through the *Pearson correlation* in Table 1 below:

**Table 1.** *Pearson Correlation*

| <b>Pearson Correlation Value</b> | <b>Description</b>  |
|----------------------------------|---------------------|
| Between 0.000 to 0.200           | No correlation      |
| Between 0.200 to 0.400           | Low correlation     |
| Between 0.400 to 0.600           | Medium correlation  |
| Between 0.600 to 0.800           | Strong correlation  |
| Between 0.600 to 0.800           | Perfect correlation |

(Sugiyono, 2011)

## III. Results And Discussion

The data on critical thinking skills and learning motivation to be analyzed were normally distributed. Furthermore, the further testing of the data used IBM SPSS 22.0. Then, the results of the linearity test of learning motivation and critical thinking skills were obtained, with the results seen in Table 1 below:

**Table 2.** Linearity Test of Critical Thinking Skills based on Learning Motivation

|       |               |                          | Sum of Squares | Df | Mean Square | F     | Sig. |
|-------|---------------|--------------------------|----------------|----|-------------|-------|------|
| Y * X | Between       | (Combined)               | 1524.119       | 28 | 54.433      | 1.071 | .412 |
|       | Groups        | Linearity                | 499.416        | 1  | 499.416     | 9.826 | .003 |
|       |               | Deviation from Linearity | 1024.704       | 27 | 37.952      | .747  | .788 |
|       | Within Groups |                          | 2185.533       | 43 | 50.826      |       |      |
|       | Total         |                          | 3709.653       | 71 |             |       |      |

Based on the linearity test table, the significance value (Sig.) obtained in the line Deviation from Linearity Sig. was 0.788. If the Sig. value  $> \alpha$  or Sig. value  $> 0,05$ , then there was a linear correlation between the learning motivation and students' critical

thinking skills variables. Hypothesis testing was carried out using the *person correlation* analysis test to determine the correlation between two variables. The following are the results of the correlation test in Table 3

**Table 3.** Pearson Correlation Test Results of the Correlation between Learning Motivation and Critical Thinking Skill

|                                |                     | Correlations |        |
|--------------------------------|---------------------|--------------|--------|
|                                |                     | X            | Y      |
| X<br>(Learning Motivation)     | Pearson Correlation | 1            | .367** |
|                                | Sig. (2-tailed)     |              | .002   |
|                                | N                   | 72           | 72     |
| Y<br>(Critical Thinking Skill) | Pearson Correlation | .367**       | 1      |
|                                | Sig. (2-tailed)     | .002         |        |
|                                | N                   | 72           | 72     |

Based on Table 3, it can be seen that the Sig. (2-tailed) value was 0.002. If the acquisition value of Sig. <0.05, then there was a significant correlation between variables. The conclusion from the correlation test results was that there was a positive correlation or correlation between learning motivation and critical thinking skills. The magnitude of the degree of correlation was 0.367.

The following calculation to find out how much learning motivation significantly affected critical thinking skills was conducted using a simple regression test. The regression test results contained an *R*-square value used to indicate the percentage (%) of the learning motivation variable.

**Table 4.** Simple Linear Regression Test

| Model | R                 | R-Square | Adjusted R-Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1     | .367 <sup>a</sup> | .135     | .122              | 6.77204                    |

Based on Table 4, it can be seen that the correlation coefficient of the *R*-column was 0.367, with the acquisition of an *R*-square value of 0.135. It meant that the contribution given by learning motivation to influence critical thinking skills was 13.5%.

The next test was the regression coefficient test. It aimed to determine the direction of the correlation between learning motivation and critical thinking skills, whether in a positive or negative direction. The results can be seen in Table 5 below:

**Table 5.** Regression Coefficient Test

| Model |            | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig. |
|-------|------------|-----------------------------|------------|---------------------------|-------|------|
|       |            | B                           | Std. Error | Beta                      |       |      |
| 1     | (Constant) | 60.543                      | 7.550      |                           | 8.018 | .000 |
|       | X          | .316                        | .096       | .367                      | 3.300 | .002 |

Table 5 showed the results of a significant correlation between learning motivation and students' critical thinking skills indicated by the acquisition through  $t_{count} (3,300) > t_{table} (1,994)$ . There was a constant number of 60.543 and a regression coefficient of

0.316, so learning motivation positively affected critical thinking skills. The regression equation can be written as  $Y = 60.543 + 0.316X$ . It meant that learning motivation increased by 0.316 at the constant 60.543 in every 1% additional.

### 3.1. Discussion

#### a. The Correlation between Learning Motivation and Critical Thinking Skill

The statistical test proved a positive correlation between learning motivation and critical thinking skills. The existence of learning motivation can increase students' critical thinking skills in accounting. Learning motivation is the driving force for students to be stimulated or moved to be directly involved during the learning process to actively contribute to better change in cognitive, affective, and psychomotor terms (Hanafiah & Suhana, 2014). Learning motivation can affect a person for something he is learning or has learned to change to be better (Schunk *et al.*, 2012).

The existence of learning motivation will encourage students to have real direction and goals to gain the understanding and knowledge needed in learning. High learning motivation also makes students more enthusiastic and challenged when faced with a learning problem. The problems given are in the form of case studies or questions that require in-depth analysis. Furthermore, solving these problems requires students' thinking skills to examine, find concepts to support data, conduct tests to determine answers and conclusions from problems. It is in line with the research results stated that students with high learning motivation liked questions that required problem analysis and problem-solving to find solutions (Nugraha *et al.*, 2017).

The learning process that is faced with analysis and solving complex problems on an ongoing basis will help in constructing critical thinking patterns which are included in *higher-order thinking skills*. Critical thinking will be formed through providing opportunities for students through systematic stages in analyzing problems, evaluating sources of information, and finding problem-solving (Henderson Hurley & Hurley, 2013). The stages of solving these problems can be resolved if students have the will and sincerity contained in learning motivation. Therefore, the results obtained can determine the involvement of students' critical thinking skills involved in accounting learning. The existence of high learning motivation will provide better results for students if the students are more enthusiastic in utilizing all of their cognitive and psychomotor skills. Then, vice versa, students with low learning motivation will be less enthusiastic in participating in the learning process, which gives poor results optimally in building students' critical thinking skills. According to Sardiman's opinion (2018), learning motivation is a form of a driving force in students that causes activity in the learning process, as well as directs students to step up and focus on the learning process. Hence, they can achieve the expected goals. Therefore, students with high learning motivation will find it easier to develop their thinking patterns that lead to critical thinking skills. Good learning motivation will also give good results for increasing students' critical thinking skills in learning (Fajari *et al.*, 2020). The results of the correlation analysis showed that there was a positive correlation or correlation between learning motivation and students' critical thinking skills. Therefore, it can be said that students with good learning motivation can get better critical thinking skills. The research results were in line with the opinion which stated that there was a positive correlation between variables, where critical thinking skills was better with the existence of learning motivation in students (Cholisoh *et al.*, 2015); (Sato, 2015); (Utomo & Murad, 2020).



## IV. Conclusion

Based on the test results above, the correlation value was 0.367 compared to the Pearson table. The correlation was in the range of 0.21 - 0.40, which had a minor correlation level criteria. The results of the hypothesis were shown through a significant value that was smaller than 0.05, which was  $0.002 < 0.5$ . It meant that  $H_a$  was accepted. The conclusion indicated a positive correlation between learning motivation and students' critical thinking skills in accounting learning with a low correlation category level. Furthermore, the statistical test results of learning motivation contributed 13.5%, while the others were influenced by factors other than learning motivation.

Then, based on the research results, a suggestion given for teachers is that teachers must be able to develop question-making that refers to the students' high order thinking skills and foster students' learning motivation. Furthermore, a suggestion for students is always to involve themselves in every learning activity and understand the importance of self-motivation.

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