THE IMPACTS OF LEARNING MOTIVATION, TEACHING QUALITY AND PEERS ON ACADEMIC ACHIEVEMENTS IN COST ACCOUNTING COURSE

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Abstract— Academic achievements signify students' subject mastery. There are two factors influencing academic achievements, which are internal and external factors. Internal factors come from within the students' own psyches and the external factors are factors that influence students from outside of their psyches. According to Slameto (2010:54), internal factors include physical health, disability status, intelligence, attention, interest, talent, learning motivation, readiness, attitude, and fatigue. External factors include parenting techniques, family relationship, house atmosphere, teaching techniques, teacher-student relationship, building condition, peers and school time. This research aims to analyze the impacts of learning motivation, teaching quality and peers on academic achievement in cost accounting course. The populations of this research are 199 third semester Diploma 4 and Diploma 3 students of Accounting Major in State Polytechnic of Malang. The research method utilized is dual regression analysis. The results of this research indicate that learning motivation has positive and significant results on academic achievements, while teaching quality and peers do not influence academic achievements in Cost Accounting course. Simultaneously, learning motivation, teaching quality, and peers positively and significantly influence the academic achievement in Cost Accounting course.

Keywords: learning motivation, teaching quality, cost accounting

Introduction
Education greatly contributes in producing quality human capital. The advancement of a nation can be measured by its human capital, generated by quality education. University holds an integral role in the education process by developing students' potentials. Such potentials can be perceived from the academic achievement of the student, which is also one of the success-defining factors for students in the future.

One of the courses taught in the Accounting major is Cost Accounting. Cost Accounting course teaches on the basic concept and purpose of cost accounting system, cost flow in the
manufacturing company and service providers, cost calculating system, as well as cost-related elements, including raw materials, workforce, and overhead, both in planning or supervising stage. This research specifically aims to improve students' competence in Cost Accounting course as this course is considered as relatively difficult for students, resulting in varied students' grade.

The academic achievement in cost accounting course is measured through individual's subject mastery. As individual's subject mastery is varied between different classes, the academic achievement in each class is also varied. Measuring academic achievement is conducted through Cost Accounting End of Semester Test (Ujian Akhir Semester).

There are internal and external factors that influence the teaching-learning process. Internal factors come from within the students' own psyche and the external factors are factors that influence students from outside of their psyches. According to Slameto (2010:54), internal factors include physical health, disability status, intelligence, attention, interest, talent, learning motivation, readiness, attitude, and fatigue. External factors include parenting techniques, family relationship, house atmosphere, teaching techniques, teacher-student relationship, building condition, peers and school time. Individual factors capable of influencing students' academic achievement are the intrinsic factors coming from within the students' own psyches, including intelligence, motives, expectation, target choice, learning behavior, and the level of focus and diligence (Byrne & Flood, 2005, Aldin et.al,2011). Carolita (2017) specified that factors capable of influencing learning achievement are learning motivation, parent attention, and peers.

Learning motivation can be established as one's energy that influences the level of persistence and enthusiasm in performing a task, both energy generated internally or externally sourced by the individual (Carolita, 2017). Staying motivated is an important factors as it holds the key for meeting learning subjects' goals. Kruck and Lending's research (2003), as well as Adjani and Adam (2012), indicated that learning motivation can significantly influence learning achievement.

Teaching quality can be perceived from teacher quality and the facilities utilized in the process of teaching-learning. Research conducted by Lestari and Suparlinah (2010), as well as by Beke (2008), established that teaching quality influences students' professional
orientation. The better the level of mastery exhibited by a lecturer in utilizing methods, media approaches, and teaching principles, the higher professional orientation exhibited by the lecturer, which in turns, will positively influence students' learning outcome. Conversely, Irawati (2011) indicated that teacher's competence has no significant impact on students' learning achievement.

One of the external factors influencing academic achievement is peers. Peers is the first social environment teenagers exposed to when they learn to interact with people other than their family members. This is true in that teenagers spend more time outside of their houses for learning, off-campus activities, or simply hanging out and playing. Peers can offer both positive and negative influences for teenagers in the social context. Accordingly, teenagers must be able to selectively choose peer environment to the best of their judgment. Willingness to collectively face various situations together is how peers influence academic achievement (Carolita, 2017)

**Literature Review**

**Learning Motivation**

Sardiman (2012: 73) indicated motivation as an energy shift experienced by someone, signalled by the emergence of "feeling" and superseded by response toward purpose. Learning motivation is a non-intellectual psychological factors. Its characterized role can be seen from passionate growth, happiness and eagerness to learn. The study outcome will be optimal when fueled by the right motivation (Sardiman, 2012). In this research, the indicators used are as follows: activity duration, activity frequency, dedication and commitment to deliver purpose, diligence in performing tasks, resilience when facing difficulties, curiosity in finding and solving problems, passion and will to succeed, as well as rewards in exchange for learning (Carolita, 2017)

**Teaching Quality**

Teacher quality and the facilities available in the process of teaching-learning form the building blocks for teaching quality. This is one of the most influential factors in establishing mindset, attitude, personality and individual behavior. Murtiyani (2000) specified that teaching quality can influence professional orientation. The better the lecturer's mastery in using teaching methods, approaches, media and principles is, the higher the lecturer's professional orientation is, which will, in turns, positively influence the students' study outcome. In this research, the indicators used are as follows: lecturer
attendancy, teaching methods utilized, and lecturer's subject mastery.

**Peers**
Friendship is defined as the relationship between individuals, whereby they share both pleasant and bitter experiences, as well as sincerely sharing, trusting, respecting and appreciating each other. In a friendship, one can feel safer as they inexpressedly trust each other to protect one another from any harm they may encounter. In this research, peers can be defined as friends who are engaged in a sharing relationship in the context of learning cost accounting. Indicators used in measuring peers variable are adjusted and developed using theory proposed by Kelly and Hansen in Desmita (2015: 220), stating that the role of peers in problem solving, in providing emotional support, and in evaluating values or norms in the peers environment.

**Academic Achievement**
Academic achievement is the term used for indicating the level of success assessed against the purpose established when one has optimally reached learning objectives (Setiawan,2006). Suryabrata (1993) explained that academic achievement is the result of learning evaluated from a process, which is usually indicated in 16 quantitative forms (number) specifically prepared for evaluation process, such as course grade, test grade, and other forms of quantifier.

**Research Hypothesis**
H1 : Learning motivation influences students' achievements in cost accounting course
H2 : Teaching quality influences students' achievements in cost accounting course
H3 : Peers influence students' achievements in cost accounting course
H4 : Learning motivation, teaching quality and peers influence students' achievements in cost accounting course.

**Method**
This research utilizes quantitative research approach. According to Sugiyono (2008:13), quantitative research process is deductive in nature, where problem formulation is answered using concepts and theories in order to formulate a hypothesis. Research location is State Polytechnic of Malang, of which address is in Jl. Soekarno Hatta 9, Malang. The population of the research is third-semester Diploma 3 and Diploma 4 students of Accounting Major in State Polytechnic of Malang. Sampling technique utilized in this research is purposive sampling using slovin formula, as well as established precision or significance level of 0.05. The sample consists of 199 students.
Data collection is a systematic and standardized procedure conducted for gathering data to be used in the research. Primary data source in this research is the students of State Polytechnic of Malang, who have taken/have been taking Cost Accounting course. Secondary source of data in this research is complementary research data gathered indirectly, in the form of articles, of which purpose is supportive of the primary data.

Data required for this research is collected through questionnaire technique. Respondents selected as research samples are given closed questionnaire for them to answer. Data analysis method utilized in this research is dual regression analysis as it is formulated in the following.

\[ Y = a + b_1 x_1 + b_2 x_2 + b_3 x_3 + e \]

Remark:
Y = dependent variables
a = constant
b = independent variables regression coefficient
\( x_{1,2,3,n} \) = independent variables
e = standard error

The quality of data used is measured through reliability test and validity test. Validity test is performed to measure questionnaire validity. Reliability test is performed to measure the reliability of the questionnaire used in measuring research variables.

Classical Assumption Test includes normality test, multicollinearity test, heteroscedasticity test and autocorrelation test. In this research, t-test is performed in order to partially discover the influences between independent variables (\( X_1, X_2, X_3 \)) and the dependent variables (Y). F-test is performed to establish whether all independent variables included in the model altogether have any influences on the dependent variables.

**Discussion**

Validity and Reliability

The result of validity test on 5 X1 variables is valid. The result of reliability test yields Cronbach Alpha value of 0.818, more than 0.600, indicating that X1 variable is reliable. The result of validity test on X2 variable is valid. The result of reliability test yields Cronbach Alpha value of 0.832, more than 0.600, indicating that X2 variable is reliable. The result of validity test on X3 variable is valid. The result of reliability test yields Cronbach Alpha value of 0.603, more than 0.600, indicating that X2 variable is reliable.

**Data Analysis**

Respondents in this research is 137 female students and 62 male students. There are 157 students of Diploma IV
and 42 students of Diploma III. The result of residual normality test uses P-Plot Normal graph on the linear regression model between Learning Motivation, Teaching Quality and Peers on the Academic Achievement of Cost Accounting Course, which yields plot points almost intersecting with the diagonal line. This establishes that the residual follows normal distribution and fulfill the normality assumption.

Multicollinearity is tested using VIF (Volume Inflation Factor). This test is required in order to determine whether there is any similarity between independent variables, or not, in a single model. If the result of the multicollinearity test on the regression model yields a tolerance value of <1 and VIF value between 1 – 10, it can be assumed that there is no multicollinearity. The result of heteroscedasticity test on the linear regression model between Learning Motivation, Teaching Quality and Peers on the Academic Achievement of Cost Accounting Course using Scatterplot graph yields plot points in random position without forming any pattern, indicating the fulfillment of heteroscedasticity. Autocorrelation test is a classical assumption test aiming to test whether there is any correlation between disrupting error during t-1 period within the linear regression model (previously). The preferred model is regression model without any autocorrelation.

The dual linear regression research result between Learning Motivation, Teaching Quality and Peers on the Academic Achievement is presented as follows:

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 \]

\[ Y = 64,736 + 0,272 X_1 + 0,150 X_2 + (-0,153) X_3 \]

The equation can be elaborated as follows:

a. Constant value (a) of 64.736 indicates that, in the absence of any influence from Learning Motivation, Teaching Quality and Peers variables, the value of Academic Achievement is 64.736.

b. The coefficient value of Learning Motivation of 0.272 indicates that each time Learning Motivation increases in value by 1, the value of Academic Achievement will increase by 0.272. In another word, higher Learning Motivation will yield higher Academic Achievement.

c. The coefficient value of Teaching Quality of 0.150 indicates that each time Learning Motivation increases in value by 1, the value of Academic Achievement will increase by 0.150. In another word, higher Teaching Quality
will yield a higher Academic Achievement.

d. The coefficient value of Peers of -0.153 indicates that each time Peers increases in value by 1, the value of Academic Achievement will also increase by -0.153.

Hypothesis testing resulted from assessing Learning Motivation, Teaching Quality and Peers variables against the Academic Achievement uses partial test (t-test), simultaneous test (F-test) and R-determination coefficient ($R^2$).

T-test is used to assess partial regression coefficients. Test result indicates that testing Learning Motivation against Academic Achievement variable yields a higher t-value calculation (2.612) than t-table (1.972) or a lower significance value (0.010) less than alpha (0.050). This establishes that Learning Motivation variable significantly influences Academic Achievement variable.

Partial test between Teaching Quality against Academic Achievement variable yields a t-value calculation (0.546) that is less than the t-table (1.972) or a higher significance value (0.586) than the alpha value (0.050). This establishes that Teaching Quality does not have a significant influence on Academic Achievement variable.

Partial test between Peers variable against Academic Achievement variable yields a t-value calculation (1.152) that is less than the t-table (1.972) or a higher significance value (0.251) than the alpha value (0.050). This establishes that Teaching Quality does not have a significant influence on Academic Achievement variable.

Simultaneous Test (F-Test)

F-Test is conducted to confirm whether $X_1$, $X_2$, and $X_3$ variables can collectively influence Y. The result of simultaneous testing with F-Test yields a higher F-value calculation (3.181) than the F-table (2.651) or a lower significance value (0.025) than alpha (0.050). This establishes that Learning Motivation, Teaching Quality and Peers simultaneously have significant influence on Academic Achievement.

Coefficient of Determination ($R^2$)

Coefficient of determination is utilized to determine how each independent variable, namely learning motivation, teaching quality and peers, individually contribute to the academic achievement. From coefficient of determination value, the result of R-Square value is 0.047, meaning that there is 4.7% percentage that Learning Motivation, Teaching Quality and Peers variables influence Academic Achievement variable. On the other hand, there is 95.3% percentage that there are other factors influencing Academic Achievement variable.
Interpretation

Learning Motivation variable (X₁) consists of questions relating with learning duration, learning frequency, learning diligence, resilience in finding the right answer and pressing forwards, eagerness to work on new problems, and the dedication in achieving satisfactory grades, as well as attention. Learning motivation serves as a one's driver to be able to study diligently and to focus on the course. Most respondents are highly motivated in learning Cost Accounting course, meaning that learning motivation influences the grade achieved by students in Cost Accounting course. This value measures the academic achievement of the students. This is consistent with the research by Carolita (2017), which indicates that learning motivation influences students' academic achievement.

Teaching Quality variable (X₂) consists of question items relating with lecturer attendancy level, teaching methods implemented, and lecturer's subject mastery. The result of this study indicates that teaching quality does not influence students' academic achievement in cost accounting course. This is consistent with the study conducted Irawati (2011), which established that teacher competency does not influence students' learning achievement.

Peers variable (X₃) consists of question items related with the interaction between peers, peers' role in providing emotional support, and peers' role in evaluating values and norms in peers environment. In analyzing the result, it is evident that peers do not influence academic achievement. The possible conclusion is peers social condition does not impact academic achievement.

Simultaneously, it is proven that Learning Motivation, Teaching Quality and Peers have influence 4.7% on the Academic Achievement variable. On the other hand, there is 95.3% chance that there are other factors influencing Academic Achievement variable. Variables falling under this category are as follows: parents, health, learning environment, and other variables not included in the research.

Conclusion

According to the research result and interpretation, the following conclusions can be drawn from this research:

1. Learning Motivation positively and significantly influence students' Academic Achievement in Cost Accounting course.
2. Teaching Quality does not have any impact on students' Academic Achievement in Cost Accounting course.
3. Peers do not influence students’ Academic Achievement in Cost Accounting course.

4. Learning Motivation, Teaching Quality and Peers simultaneously influence students' Academic Achievement in Cost Accounting course in a positive and significant manner.

**Suggestion**

1. As per research result, the following suggestions are provided by the researchers.

2. Students need to improve their motivation in learning courses as motivation will help them focus to achieve goals and satisfactory grades.

3. Teaching quality needs to be improved as it helps pique students' interest in learning Cost Accounting.

4. Students need to be selective in picking the right peers that can support their learning.

5. For researchers who are interested in furthering the study in this field, they can add other variables, for example, environment, health condition, parents, and other variables. Additionally, this can be done utilizing the same population as this research.

**References**


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