THE INFLUENCE OF EMOTIONAL INTELLIGENCE AND SELF-EFFICACY OF LEARNING MOTIVATION IN THE CALCULUS COURSES OF STUDENTS STMIK BINA ADINATA

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Abstrak

Penelitian ini bertujuan untuk mengetahui : (1) pengaruh langsung kecerdasan emosional terhadap motivasi belajar, (2) pengaruh langsung efikasi diri terhadap motivasi belajar, dan (3) pengaruh langsung secara simultan antara kecerdasan emosional dan efikasi diri terhadap motivasi belajar. Sampel dalam penelitian ini adalah mahasiswa program studi sistem komputer STMIK Bina Adinata di Kabupaten Bulukumba yang berjumlah 100 orang dengan teknik pengambilan sampel dengan cara *random sampling*. Metode penelitian yang digunakan dalam penelitian ini yaitu penelitian *ex-post facto*. Data dianalisis dengan statistik inferensial. Kesimpulan dalam penelitian ini sebagai berikut (1) Kecerdasan emosional berpengaruh postif dan signifikan secara langsung terhadap motivasi belajar dengan koefisien regresi terstandarisasi sebesar 0,261 dengan nilai $p = 0,006 < 0,05$. (2) Efikasi diri berpengaruh postif dan signifikan secara langsung terhadap motivasi belajar dengan koefisien regresi terstandarisasi sebesar 0,292 dengan nilai $p = 0,002 < 0,05$. (3) Kecerdasan emosional dan efikasi diri secara bersama-sama berpengaruh positif dan signifikan terhadap motivasi belajar dengan koefisien regresi terstandarisasi sebesar 0,261 x 0,292 = 0,0762 dengan nilai $p = 0,006$ x $0,002 = 0,000012 < 0,05$
Kata kunci: efikasi diri; kecerdasan emosional; motivasi belajar.

Abstract

The study aims to find out: (1) The direct influence of emotional intelligence towards learning motivation, (2) direct influence of self-efficacy towards learning motivation, and (3) the simultaneous direct influence between emotional intelligence and self-efficacy towards learning motivation. The samples in this study were students of the computer System study Program of STMIK Bina Adinata in Bulukumba Regency which amounted to 100 people with sampling techniques by random sampling. The research method used in this study was ex-post facto research. Data is analyzed with inferential statistics. The conclusion in this study as follows (1) The emotional intelligence is influential positive and is directly against the motivation of learning with a standardized regression coefficient of 0.261 with a value of $p = 0.006 < 0.05$. (2) The effective and positive effect of the self-efficacy of the learning motivation with standardized regression coefficient of 0.292 with a value of $p = 0.002 < 0.05$. (3) The emotional intelligence and self-efficacy jointly influence positive and significant to the motivation of learning with standardized regression coefficient of 0.261 x 0.292 = 0.0762 with value $p = 0.006$ x $0.002 = 0.000012 < 0.05$
Keywords: emotional intelligence; learning motivation; self-efficacy.

INTRODUCTION

Mathematics is called the knowledge of science because mathematics is an independent science and is also a basic science that must be owned by students to support the success of learning in the education of every level of school (Kusrini, et al, 2014:5). In addition, mathematics is also instrumental in daily life and plays an important role in the development of science in other branches (Kusrini, et al, 2014:6). Nevertheless, mathematics is still considered to be a large student as a frightening, difficult, and boring lesson (Kamarullah, 2017:23). This is because in studying mathematics students are faced with symbols and difficult and confusing formulas (Kamarullah, 2017:23). The difficulty of math subjects makes students less interested and motivated in learning.

At the college level especially the sciences exacta and techniques, mathematics is one of the basic courses presented in the early semester. At STMIK Bina Adinata, especially computer system study program, mathematics course must be programmed by students of semester 1 and 2, namely Calculus I and Calculus II.

As one of the teachers in Calculus courses in STMIK Bina Adinata, especially computer system study program, we found that at the time of the research, there are still many students who are less active in class and the student's inability to solve an integral problem. In addition, there are still students who do not follow the courses at the time of the course, and consider the course of calculus is useless for the completion of the study. This signifies the student's motivation to learn that calculus is still low and has an impact on achieving the course's learning achievement.

According to Subroto (Faizi, 2018: 228), motivation is a condition in a person or individual who encourages the individual to carry out certain activities in order According to Subroto (Faizi, 2018:228), motivation is a condition in the person or individual who encourages the individual to perform certain activities in

order to achieve a goal. Djamarah (Aryanti & Muhsin, 2020:244) suggests that "in the process of learning, motivation is indispensable, because one who has no motivation in learning, will not be able to do learning activities". Less motivation in the learning process is influenced by internal and external factors. Internal factors are factors derived from the individual concerned, including physical and spiritual. While external factors are factors that come from outside the individual concerned or often called the environmental factors of family, school and society.

One of the internal factors that affect motivation in learning is emotional intelligence. According to Mustaqim (Faizi, 2018:229), emotional intelligence is an ability to comprehend the feelings of themselves and the feelings of others, the ability to motivate himself, and to atone for both the emotions that arise within him and in dealing with others. Students who have sufficient emotional intelligence mean he is able to motivate himself to act precisely with mood and to utilize his feelings to lead to behavior. The results of the research of Faizi (2018:233) show that emotional intelligence affects the motivation of learning students in mathematics SDI Babussalam. Another study also conducted by Rahakbauw (2020) showed that the emotional intelligence was of the effect of posif and significant to the motivation of learning economic subjects. In addition, research conducted by Roy, et al (2013:129) shows that emotional intelligence positively affects students ' motivation.

In addition, another internal factor that affects the motivation to learn is self-efficacy. Self-efficacy is a person's belief in the ability to demonstrate certain performance that can affect his or her life. Self-efficacy determines how people feel, think, motivate themselves, and behave. The beliefs formed in self-efficacy are awakened through four main processes, namely cognitive processes, motivational processes, affective processes, and selection processes (Kristyani, 2016:83). People who have high efficacy, will have a high motivation in carrying out a certain task compared to people who have low efficacies. This was in line with the research conducted by Amir (2016:340) indicating that self-efficacy as a free variable affects the motivation of achieving the University of Bengkulu education students. Another study was also conducted by Aswin (2018) showing that the

efficacy of self-influence and significant effect on the motivation to learn mathematics of high school students class XI IPA.

Research Hypothesis

The following are the hypotheses used in this study:

Hypothesis   1: Emotional intelligence has a positive effect on learning motivation

Hypothesis   2: Self-efficacy has a positive effect on learning motivation

Hypothesis   3: Emotional intelligence and self-efficacy simultaneously have a positive effect on learning motivation

METHOD

This research is an ex-post facto research which is causality. Researchers in this case will explore the causal relationship (causal) and test hypotheses that have been formulated previously, among others: emotional intelligence, self-efficacy affects student motivation in calculus courses.

The sample in this study were students of the STMIK Bina Adinata computer system study program. The sampling method used to obtain random samples and can represent population characteristics according to the purpose of this study is to use random sampling techniques with the number of samples of this study is 100. Data collection is done using a scale consisting of emotional intelligence scale, self-efficacy scale, and scale motivation to learn. Alternative answers on the scale of emotional intelligence, self-efficacy scale, and learning motivation scale using a Likert scale with 5 answer choices consisting of Very Appropriate / Strongly Agree (SS), Accord / Agree (S), Hesitate (R), Unsuitable / Disagree (TS), Very Inappropriate / Strongly Disagree (STS) (Sugiyono, 2011: 93). Scoring on this scale ranges from 1 - 5 based on items that are favorable and unfavorable. For favorable items the answer score SS = 5, S = 4, R = 3, TS = 2, STS = 1. For items that are unfavorable answer scores SS = 1, S = 2, R = 3, TS = 2, STS = 1.

Analysis of the data used in this study consisted of two stages. First is the analysis of data for the items of statements to measure the validity and reliability of

the instrument using Cronbach alpha, the second is the analysis of data to answer the research problem. The data analysis technique used is inferential intended for analysis and validation of the proposed model and hypothesis testing. Therefore, a path analysis technique is used using IBM version 20.0 of the AMOS (Analysis Of Moment Structure) program package and IBM SPSS version 20.
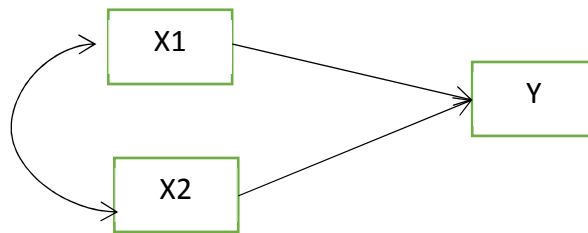
Research Design

Figure 1. Research Design

Ket :

X1 = Emotional Intelligence

X2 = Self-Efficacy

Y = Learning Motivation

RESULTS AND DISCUSSION

Hypothesis testing in this study uses path analysis. Previously, there were prerequisite tests, which were normality test, linearity test and multicollinearity test.

Table.1 Parameter estimation (regression weight) based on the path analysis model

Path of analysis			Estimate	Standar Estimate	Critial Ratio	Parameter (*p*)
Learning Motivation	<--	Emotional Intelligence	0,137	0,050	2,726	0,006
Learning Motivation	<--	Self-Efficacy	0,269	0,088	3,053	0,002

Table 2. Standardized Parameter Estimation (Standardized Regression Weights)

Path of analysis		Estimate
Learning Motivation <--- Emotional Intelligence		0,261
Learning Motivation <--- Self-Efficacy		0,292

Based on tables 1 and 2 Estimation Standards Parameters obtained that (1) there is a positive and significant direct effect of emotional intelligence (X1) on learning motivation (Y) at a significance level of 0.05 with an estimated 0.261 positive results with a value of $p = 0.006 < 0.05$ which is significant; (2) there is a positive and significant direct effect of Self-Efficacy (X2) on Learning Motivation (Y) at a significance level of 0.05 with a positive estimate of 0.292 with a significant value of $p = 0.002 < 0.05$ (3) Emotional intelligence (X1) and self-efficacy (X2) simultaneously have positive and significant effect on learning motivation (Y) at the significance level of 0.05 with an estimated result of 0.261 x 0.292 = 0.0762 which is positive with a p value = 0.006 x 0.002 = 0.000012 <0.05

The influence of emotional intelligence on learning motivation

Based on the results of the first hypothesis test by using the IBM SPSS AMOS 20, shows that there is a positive and significant influence on emotional intelligence to learn motivation with the weight of a regression coefficient of standardized emotional intelligence towards learning motivation of 0.261 with a value of $p = 0.006 < 0.05$. This suggests that emotional intelligence affects the motivation of students in learning calculus. This opinion is supported by Goleman (Gusniwati & Rahmawati,2019:18) Emotional intelligence is the ability that a person has in self-motivation, endurance in the face of failure, and the results of research conducted by Gusniwati & Rahmawati (2019) showed that there was a direct influence on the emotional intelligence of the motivation to learn English and the results of Faizi Research (2018:233) showed that emotional intelligence affects the motivation to learn mathematics students SDI BA.

The influence of self-efficacy on learning motivation

Based on the results of the second hypothesis testing using the SPSS AMOS IBM 20, shows that there is a positive and significant influence over the efficacy of learning motivation with the weight of the regression coefficient of standardized self-efficacies of the learning motivation of 0.292 with a value of $p = 0.002 < 0.05$. This opinion supported by Kristyani (2016:83) suggests self-efficacy determines how people feel, think, motivate themselves, and behave. The beliefs formed in self-efficacy are awakened through four main processes, namely cognitive processes, motivational processes, affective processes, and selection processes. It is also in line with the research conducted by Amir (2016:340) indicating that self-efficacy as a free variable affects the motivation of achieving the University of Bengkulu education students. Other studies also conducted by Aswin (2018) showed that the efficacy of self-influence and significant effect on the motivation to learn the students ' mathematical subjects.

The influence of shared emotional intelligence and self-efficacy towards learning motivation

Based on the results of the second hypothesis testing using the IBM SPSS AMOS 20, it shows that there is a combined influence of positive and significant emotional intelligence and self-efficacy towards learning motivation with standardized regression coefficient weights of 0.261 x 0.292 = 0.0762 with a value of $p = 0.006$ x 0.002 = 0.000012 < 0.05. This shows that there are internal factors in students, i.e. emotional intelligence and self-efficacy positively influence the student's motivation to learn calculus.

CONCLUSION

Based on the results of the hypothesis testing and discussion, the conclusion in this study, as follows: (1) Emotional intelligence positively and significantly affects the motivation to learn with standardized regression coefficient of 0.261 with a value of $p = 0.006 < 0.05$; (2) Efficacy of positive and significant effect on learning motivation with standardized regression coefficient of 0.292 with value $p = 0.002 < 0.05$; (3) The emotional intelligence and self-efficacy jointly influence positive and significant to the motivation of learning with standardized

regression coefficient of 0.261 x 0.292 = 0.0762 with value p = 0.006 x 0.002 = 0.000012 < 0.05.

Based on the results of the study, the researchers' suggestions are as follows: (1) It is better that in following calculus lessons students must control their emotions and motivate themselves to take lessons; (2) Lecturers should provide motivation first before starting lectures by linking the benefits of calculus learning in daily life so that students are motivated in learning calculus.

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