

Conference Paper

The Role of Self-Efficacy in Improving Student Academic Motivation

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Abstract.

This study aimed to re-examine the role of self-efficacy in encouraging student academic motivation. Academic motivation is needed for academic achievements and learning satisfaction. One factor that can encourage academic motivation in students is self-efficacy. Theoretical gaps related to the positive and negative influence of self-efficacy factors on academic motivation and testing the role of self-efficacy on student academic motivation encouraged this research to be held. The study used structural equation modeling covariance analysis. This study used a modification of the academic motivation scale (AMS-C 28) College (CEGEP) the self-efficacy for learning students' form (SELF-A) that has been valid and reliable. The results stated that self-efficacy does play a role in increasing student academic motivation.

Keywords: Self-efficacy, Academic motivation, Student

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1. Introduction

Academic motivation is a driver of student learning [1,2]. The student learning process, accompanied by academic motivation, will cause a sense of pleasure in learning, the desire to learn about a particular material, perseverance in the learning process, and bounce back when students experience failure in learning [3–6]. Students who do not have academic motivation to learn will find it challenging to adapt to the learning process. Therefore, academic motivation is essential in the learning process in lectures. However, the problem experienced by students today is that students need more academic motivation to learn [7–11]. Students feel that studying is a burden or obligation that must be taken. The learning process becomes routine. Students also prefer to avoid the learning process.

Lack of academic motivation for students can also make students give up easily when students experience new challenges in learning. Students who lack academic motivation also procrastinate on course assignments. Lack of student academic motivation also leads to low academic achievement in the lecture process. Low academic

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motivation can be caused by various things, namely parenting style, social support, teacher teaching style, friend social support, teacher social support, family social support, etc.[12,13,22,23,14–21]. In addition, a lack of academic motivation can be caused by many internal factors of students. One of the internal factors that can affect academic motivation is student self-efficacy [7,24–29].

Self-efficacy is a belief in students' self-abilities [30–36]. Many psychological constructs define self-efficacy. Self-efficacy is the interaction of the influence of one's environment and personality on self-assessment carried out by an individual [36]. Self-efficacy can also mean self-evaluation of performance [37,38]. If students have good self-efficacy, then students have an excellent self-evaluation of the lecture process. High self-efficacy in the student learning process can affect student academic motivation

Previous research suggests that self-efficacy can increase academic motivation [39–47]. This is due to the role of self-efficacy in positively assessing oneself able to encourage academic motivation. Students who believe positively in their ability to plan and determine the right learning strategy for themselves will increase academic motivation in lectures. Students who have a positive belief in their ability to monitor the learning process in lectures will encourage academic motivation to determine the learning process that will be carried out in achieving the expected learning goals. Students who believe positively in lectures will encourage students to always be active in finding new information, developing competencies, and developing expertise in learning.

Previous research has also stated that self-efficacy can reduce academic motivation [48]. This is because the high self-efficacy of students in learning will reduce student motivation to do tasks with a high level of difficulty. Therefore, self-efficacy can reduce academic motivation. The difference in the gap in research results on the role of self-efficacy in influencing student academic motivation and academic motivation problems empirical encourages researchers to re-examine the Role of Self-Efficacy in Encouraging Student Academic Motivation.

2. Literature Review

2.1. Academic Motivation

Academic motivation is a driver for students in carrying out lecture activities [3]. Academic motivation also means encouraging students to carry out the learning process in lectures [3,4,49]. Academic motivation also encourages students to carry out the

learning evaluation process independently and diligently in facing the lecture process [50–52]. Academic motivation has three dimensions: intrinsic, extrinsic, and amotivation [53–55]. Intrinsic motivation is an individual's desire to do something from within. Intrinsic motivation is an individual's drive to carry out learning activities caused by the desire to develop themselves. Intrinsic motivation is the desire to teach students to master new abilities or knowledge [53,54].

Extrinsic motivation is academic motivation that comes from external sources. These external sources can be gifts, rewards from the environment, praise, recognition from the surrounding environment, etc [53,54]. Amotivation is a condition where students lack academic motivation in learning [53,54]. Amotivation is student behavior in assuming that learning is a futile effort to do. Intrinsic motivation has three dimensions: academic motivation to understand the knowledge that has never been encountered, academic motivation to create original work, and intrinsic motivation to feel the emotion of satisfaction in the process of working.

Extrinsic motivation is an academic motivation that has three dimensions, namely external regulation; introjected regulation; and identification [53,54]. The first dimension is external regulation, which is a learning impulse that comes from stimulus rewards or something fun for students. The second dimension is introjected regulation. Introjected regulation is a set of regulations that can motivate students to achieve certain pride or pressure that makes students avoid regrets in academic learning. The third dimension of academic motivation is identification, namely, student learning drive caused by values, views, or cultures that are internalized personally. In this study, the dimensions of academic motivation measured were intrinsic motivation and extrinsic motivation.

2.2. Self-Efficacy

Self-efficacy is the belief in individual abilities in every strength, ability, and potential possessed by students [31,32,56]. Self-efficacy is a positive self-evaluation of the academic process carried out by students in lectures [33–35]. Self-efficacy is a student self-assessment that students are able to carry out the learning process to achieve the learning goals to be achieved. Self-efficacy has three dimensions, namely level, generality, and strength [32]. The level is personal confidence in learning efforts and solving problems in the student learning process [36]. Students have different levels of tendencies from each other. There are students who have high self-confidence in Compiling learning, but there are students who also have medium and low self-confidence in Compiling learning. There are students who have high self-confidence

in achieving learning goals, and there are students who have medium and low self-confidence in achieving learning goals.

The second dimension of self-efficacy is generality [25,26,31,32]. Generality is the belief to equate students' abilities in lectures to all fields or to all abilities. Suppose the student feels confident that the student has solved a challenge in one area of the course. In that case, the student's self-efficacy can extend to other fields of study or other abilities. The third dimension of self-efficacy is strength [32,38,48]. This strength dimension is the resilience of students in facing lecture problems. Students who have this strength dimension are students who are persistent and persistence in achieving lecture goals. Students who have this strength dimension are students who have confidence that students can solve problems and challenges in learning.

Self-efficacy comes from a variety of sources, such as ability attainment, vicarious experience, verbal persuasion, physiological states, and affective and integration of information about efficacy [29,33,57,58]. The achievement of abilities can encourage self-efficacy because the achievement of abilities has proven that students have been able to solve challenges in the learning process that has been carried out. Vicarious experience also guides students in observing the behavior of others who have been able to achieve learning goals, to try to achieve the goals that have been designed. Verbal persuasion that states that individuals can achieve lecture goals encourages students to persist in achieving academic goals that have been formulated. A healthy physiological and affective state will help students achieve the expected academic success. Students who do not have a good physiological and affective state will reduce student self-efficacy in achieving academic achievement or persevering in learning. The integration of information about personal information determines how students believe in their ability to learn the course material.

2.3. The Effect of Self-Efficacy on Academic Motivation

Self-efficacy can encourage academic motivation. Self-efficacy can have a positive influence on academic motivation [41,42,44,45,59–63]. Positive self-efficacy can encourage students to develop learning strategies. Good self-efficacy can improve student performance in lectures. Students who have good self-efficacy can survive if they face difficulties in learning. Problem-solving creativity is also optimized in lectures if students have good self-efficacy. Good self-efficacy also leads students to keep getting up and trying to achieve the specified goals. So that self-efficacy can increase student academic motivation.

Self-efficacy can also inhibit academic motivation in lectures [48]. High self-efficacy causes students to be reluctant to perform tasks and self-development with a high level of difficulty. So that self-efficacy can reduce academic motivation.

3. Method

This study uses structural equation modeling covariance analysis which examines the influence between related variables [64]. The exogenous variable in this study was self-efficacy, and the endogenous variable in this study was academic motivation. The sample of this study was 408 students of Universitas Panca Marga Probolinggo. Academic motivation in this study was measured using a modified academic motivation scale (AMS-C 28) College (CEGEP)[53–55]. Self-efficacy was measured using a modified scale of the self-efficacy for learning students' form (SELF-A) [57]

Construct validity against the scale to be used using CFA analysis. The result of convergent validity on modifying the academic motivation scale and self-efficacy is more than 0.5, so the self-efficacy and academic motivation scales have construct validity. The value of the loading factor on the level dimension in the self-efficacy variable is 0.845, the generality in the self-efficacy variable of 0.936, and the strength dimension in the self-efficacy variable of 0.817. The value of the loading factor on the intrinsic motivation dimension on the academic motivation variable was 0.874, and the extrinsic motivation dimension on the academic motivation variable was 0.925. Measurement of reliability on each dimension represented in each indicator of academic motivation (0.734 and 0.725) and self-efficacy (0.818; 0.821; 0.844) resulted in a greater AVE root than the correlation results between dimensions, so that the scale was declared reliable in measuring self-efficacy and academic motivation.

4. Result and Discussion

4.1. Result

4.1.1. Linearity Test of the Relationship of Exogenous Variables to Endogenous Variables

The linearity analysis of the relationship of self-efficacy variables to academic motivation has a probability value of < 0.05 , which is 0.000.

TABLE 1: Results of Data Analysis of the Effect of Self-Efficacy on Student Academic Motivation.

| Exogenous | Endogenous | F | Probability | Information |
|---------------|---------------------|---------|-------------|-------------|
| Self-Efficacy | Academic Motivation | 220,477 | 0,000 | Linear |

The results of the data analysis show that there is a linear relationship between student self-efficacy and student academic motivation.

4.1.2. Normality Test

The normality test analysis on this study data has multivariate C.R. strands between the critical value range of ± 2.58 , which is 1.883.

TABLE 2: Data Normality Test Results of the Effect of Self-Efficacy on Student Academic Motivation.

| Multivariate Normality | C.R. |
|------------------------|-------|
| 9.754 | 1.883 |

Because the C.R. value of the effect of self-efficacy on student academic motivation is 1,883, which is between the critical score range of ± 2.58 , the research data is normally distributed.

4.1.3. Outlier Test

The data of this study does not contain outliers because the values of probability 1 and probability 2 are less than 0.05. Therefore, this study does not contain extreme data.

4.1.4. Data Analysis of the Effect of Self-Efficacy on Academic Motivation

The results of data analysis show that self-efficacy affects student academic motivation; this is seen from the C.R.> value of the T statistic or probability< level of significance (alpha = 5%)

TABLE 3: Results of Data Analysis of the Effect of Self-Efficacy on Student Academic Motivation.

| Exogenous | Endogenous | Path Coefficient | S.E | C.R | p |
|---------------|---------------------|------------------|-------|-------|-----|
| Self-efficacy | Academic Motivation | 0,494 | 0,062 | 7.148 | *** |

C.R.'s scores on the effect of student self-efficacy on academic motivation were 7,148 > t statistic (1.96) and p*** (<0.01) < 0.05. Therefore, it can be said that self-efficacy plays a role in increasing academic motivation. The effect of self-efficacy on student academic

motivation has a direct effect coefficient value of 0.494. Therefore, self-efficacy has a positive and significant influence on academic motivation.

4.2. Discussion

This study's results can explain the role of self-efficacy on student academic motivation. Self-efficacy can play a role in increasing student academic motivation [24–27,65]. This research is in accordance with previous research that explains that self-efficacy can encourage student academic motivation [24–27,65]. Each dimension of student self-efficacy contributes to increasing student academic motivation. Student self-efficacy in the level dimension can contribute to increasing student academic motivation. The high level of student confidence in designing strategies for achieving student independent learning goals can encourage student efforts in setting what goals to achieve and strategies to be taken in learning. If students feel confident that the strategy set is achievable and has the opportunity to achieve these goals, the student will try to follow the lecture hard. The student also tries to keep facing challenges and even failure if he gets a bad grade from every learning process. The student also became more persistent in facing the challenges that existed.

Self-efficacy in generality is also able to increase student academic motivation [32,35,36]. Students who have success in learning tend to have conclusions about the assessment of their learning performance, which is related to the generalization of success to all areas of lecture material or all abilities. If students achieve success in exact courses, then students will assume that students have the opportunity to achieve success in social, psychometric, or theoretical courses. These students also generalize the observation skills needed in authentic learning to mastery of case analysis skills or the ability to synthesize theories in other learning. Self-confidence in the ability to generalize the field or ability encourages students to prepare well for lectures; strive to learn optimally; try to complete the lecture process to the maximum; Stay hopeful when experiencing failures in understanding the lecture material.

Self-efficacy in strength is also able to increase student academic motivation. Student confidence in the dimension of strength in the lecture process can motivate students to learn more. Students' confidence in their strengths in the face of new knowledge, challenges, and information changes can encourage academic motivation. Students' confidence in their strength in facing new knowledge can encourage students to attend lectures actively, conduct discussions in learning new topics, and be persistent when it is challenging to follow new and unfamiliar topics in learning. Students'

confidence in facing the challenges of course material encourages students to continue to learn about the challenges faced, read lecture books on solving challenges, and discuss solving challenges with more expert academics. Student personal beliefs related to adjusting to changes in information encourage students to be more motivated in students' efforts to get used to reading journals related to the latest research results, synthesize theories, and study the latest material in order to be able to adapt to the face of the latest science.

Student self-efficacy can increase student academic motivation intrinsically [36,37]. Student self-efficacy can encourage students to keep reading the latest information. Student self-efficacy can increase student awareness to be motivated in improving new competencies or abilities; persist in achieving the designed learning objectives; persevere in the learning process that is not easy; Expect success in learning to continue to strive to achieve learning goals.

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