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Self-efficacy and Self-Regulated Learning as Predictors of Students Academic Performance

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Abstract: In this research, correlations between self-efficacy, self-regulation of learning and academic achievements in a sample of 101 students of the Psychology Faculty at Universitas Padjadjaran were investigated. The study revealed that self-efficacy, self-regulation of learning and academic achievements are positively correlated, which implies that if one of the three variables experience a positive or negative change, the other two will also experience change. The coefficient correlations found in this research are 0.456 for correlation between self-efficacy and self-regulation of learning, 0.304 for correlation between self-regulation of learning and achievement; and 0.263 for correlation between self-efficacy and academic achievement.

Keywords: Academic performance, self-efficacy, self-regulated learning, regulated learning questionaire, corelation, learning achivements.

INTRODUCTION

Academic performance has become an essential component in the determination of job selection in the current world. It also influences the selection for further studies. This has caused most companies of the present time to demand for high grade point averages (GPA) from applicants as one of the criterion for initial job selection and recruitment. In Indonesia, the required grade point averages vary from company to company. However, in general, companies have set 2.75 and 3.00 as a minimum passing grades for job applicants. Besides, the requirements for job application, 2.75 is also used by institutions of higher learning as the minimum grade to be accepted for further studies.

In Indonesia, universities as providers of higher education have taken serious the issue of grade point average (GPA) of their graduates. Each university aims to faciliate its graduates during and after the search for jobs and also ensure that they are able to go for further studies at any given point. According to the student's data at the faculty of psychology of Padjadjaran University, it has been established that until the academic year 2004/2005, the average GPA of second year students was 2.70 with a total population of 52.94% having scored a grade point average below 2.75, while the average score for first year students was 2.59, totaling to a population of 53.13%.

This data shows that more than half of psychology students both in 1st and 2nd year in the faculty of psychology at Padjadjaran University attained scores below a GPA of 2.75. It means that there is quit a big number of students that must work-hard to increase their grade point average such that by the time they graduate, atleast they should have attained the required minimum grade point average needed as minimum requirement for job application and also as a requirement for further studies.

There should special attention paid to students with a grade point average below 2.75, because if not, such students might face difficulties during job application and also cannot apply for further studies. Based on unrecorded research

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experiences and unstructured interviews, it was established that in the advanced semesters, most of the courses become more difficult and complex for the students to improve their graduates.

In regard to the mentioned problem, the researcher observed semester I students in the faculty of psychology at Padjadjaran University those taking the course of General Psychology I. According to the observation results, it was established that during the teaching and learning process of General Psychology I course, many students were not brave to ask the lecturer about the learnt material. Besides, the was also found that most students were not sure of their answers in regard to the questions from their lecturer and or could also not answer or even ask peers during class presentations. It was also observed that once a fellow student or lecturer asked, most students either could look at the peer next tot them or look down. Those who were able to answer the questions were often seen not sure of what they say. From these observation results, the researcher concluded that students had low self-efficacy and or low self-confidence.

The researcher also observed that the majority of the students do not read or revisit the course materials while at home, even though they had been asked to do so by their lecturer. It was also established that assignments are also written for the sake of finishing classroom tasks. This indicated by the fact that some students tend to hand-in their tasks beyond the stated time by the lecture. Further, during a quiz conducted by the lecturer the average score was 58.21% (at a scale of 0-100) with 105 students from 141 who followed the quiz scored below 68% (which is the minimum limit for a B Padjadjaran University). When asked about the marks obtained, most of the students replied that they did not read at home, hence facing difficulties to answer the questions asked during the quiz. Based on the above condition, the researcher believes that the students' self-regulation of learning is not good. It is this condition that motivated the researcher to study about the relationships between self-efficacy and regulated learning towards students' academic performance (achievement).

THEORETICAL REVIEW

The Relationship Between Self-Efficacy and Academic Performance

Self-efficacy is an individual's belief and ability to perform a certain task. In other words, it is the ability to manage and determine individual behaviour [1]. According to Bandura [2] self-efficacy influences individual feelings, thoughts, motivation and behaviour. This means that a person's inner belief influences personal abilities and decisions [2]. In reference to academics, self-efficacy has an influence on choice of activities, student efforts, and indivdual level of performance [1 - 4].

Students with a higher level of self-efficacy are able to determine their learning objectives as compared to those with low self-efficacy [1, 2]. Several studies have revealed that self-efficacy can be used to predict the use of self-regulated learning as one the strategies [5 - 7] in teaching and learning. For instance, research shows that students with a high degree of self-efficacy will be in position to use self-regulated learning strategy in a more diverse manner to facilitate their learning compared to those with low self-efficacy. It has further been revealed that self-efficacy is related to student achievement and academic performance [3, 8].

The Relationship Between Regulated Learning and Students Achievement

Self-regulated learning involves activities that focus on learning objectives in which students direct, modify, and maintain their learning activities. Zimmerman emphasizes that an individual who is self-regulated must use specific strategies during learning in order to achieve the required academic goals [9]. For instance, in a self regulated learning context, learners set specific learning objectives in form of out-comes and or performance. The learner applies strategies which are deemed appropriate to achieve learning objectives and also monitors the effectiveness of these selected methods or learning strategies. In reference to evaluating personal developments, a self-regulated learner assesses or evaluates personal achievements in regard to the expected goals or outcome. If it happens that the learner had failed to achieve the stipulated learning objectives, then both the objectives and learning strategies will be revised. However, if the learning objectives have been achieved, then such a learner will set new learning goals and plan for new learning activities. Several studies have shown that students who perform well on their academics are more of self-regulated learners than those with lower academic performance [10 - 16].

Research Method

This study is a cross section, correlational study, which looked at the relationship between more than two variables. Graziano and Raulin [17] are of the view that a correlational study has two important functions to perform in any given study: 1) each outcome from a consistent relationship can be used to predict future events. 2) it clarifies consistentt or inconsistent data in regard to a chosen theory of the study. It also clarifies that change does not neccessarily occur because of a special treatement by the researcher, but it can also occure on its own [18]. Based on these descriptions, the data obtained in this study was analyzed using correlation calculations.

Respondents

The study comprised of 101 responds students from the first semester of the undergraduate program in the Faculty of Psychology at Padjadjaran University, offering a subject course of General Psychology I.

Variables and Instrument for Measurement

In this study, there were three variables: self-efficacy, self-regulation, and academic achievement. The instruments used to measure the three variables of the study were: **1**) ***Academic Self-efficacy questionaire–*** to measure self-efficacy, an academic self-efficacy questionnaire was used as an instruement for measurement. The academic self-efficacy questionnaire contained 18 statements which could were used to measure students' self-efficacy, consisting of 5 components of self-efficacy to obtain the value of A, to understand the subject matter and interact with lecturers in class, working out examination questions, write the assignments, and summarizing the learnt academic materials. **2**) ***Regulated Learning Questionaire***– To measure self-reguated learning, a questionaire on regulated learfning was used. This instrument comprised on 18 statements and those which could be used in the measurement of students regulated learning were 5 strategies on regulated learning, that is: metacognitive (which consisted of planning, monitoring, and regulating), the strategy to maintain self regulated learning efforts, time management and peer learning. 3) ***Academic Performance*** – in this study, students learning achievement was measured using general psycholog I results obtained at the end of the semester.

HYPOTHESIS

The hypothesis proposed in this study were as follow:

Hypothesis 1:

There is a relationship between self-efficacy and academic achievement of students, with the assumption that the stronger the self-efficacy of a student, there is higher learning achievement.

Hypothesis 2:

There is a relationship between the regulation of learning and academic achievement of a student, in that with better student regulation, there is higher student academic performance.

RESULTS OF THE STUDY

In this section, the results are presented in regard to the findings on the correlation between self-efficacy, regulated learning, and learning achievement or performance of the students. The Table **1**, presents the overall results of the study:

Table 1. A presentation of the overall results of the study.

Research Variables	Self-efficacy	Reg	Learning Achievement
Self-efficacy	1	.456(**)	.263(**)
Regulated Learning	.456(**)	1	.394(**)
Learning Achievement	.263(**)	.394(**)	1

**The correlation is significant with an error of 0.01.

Correlation Between Self-Efficacy and Regulated Learning

Based on the calculation of correlation between self-efficacy and regulation of learning the researcher obtained a correlational coefficient of 0.456 (significant at the level of error 0.01). This shows that there is a positive relationship

between self-efficacy and regulation of learning, meaning that the higher the level of self-efficacy of the respondents, the better regulated is the learning.

Correlation Between Self-efficacy and Academic Achievement

Based on the calculation of correlation between self-efficacy and academic achievement, a correlation coefficient of 0.263 (the level of significancy with a 0.01). This shows that there is a positive relationship between self-efficacy and achievement, meaning that the higher the level of self-efficacy of the respondents, the better performance and *vice versa*.

The Correlation Between Regulated Learning and Performance

Based on the calculation of correlation between the regulation of learning and achievement obtained a correlation coefficient of 0.394 (significant at the level the mistake 0.01). This shows that there is a positive relationship between the regulation of learning and achievement, meaning that the better regulation of the respondents learned the better performance and *vice versa*.

DISCUSSION

Based on the statistical analysis of the data of the respondents, the result showed that there is a positive correlation between the three measured variables, namely self-efficacy, regulated learning, and learning achievement. Thus, the higher the score the respondent in one of the study variables, the higher the score of the respondents on the other two variables, or *vice versa*. This suggests that higher the level of the respondents' self-efficacy, the better the learning regulation and the higher the academic achievement.

Pajares [3] suggested that self-efficacy affects several aspects that indicate academic motivation as choice of activities, level of effort, persistence, and emotional reactions. Individuals tend to choose situations that he believes can be addressed than the situation that are threatening its ability to resolve the issue. Individuals will engage in a task in which he was competent and would rather engage in activities that he believes does not exceed the capabilities. Students who have high self-efficacy will not give up so easily when they have problems, but will continue to maintain their learning behavior or try other ways when I was doing was considered ineffective to achieve learning goals. Schunk [4] states that individuals who have high self-efficacy for completing a task will work harder and last longer when faced with obstacles, while individuals who have low self-efficacy tend to give up or avoid the execution of the task.

In the context of this study, students who have high self-efficacy, when they have problems tend to continue to defend the actions of learning in order to understand the material. He will try to re-read the subject matter, seek information from other sources or ask questions on the faculty in the classroom. Meanwhile, students with low self-efficacy, when experiencing difficulty in understanding the subject matter tend to give up and choose to stop the behavior or actions of learning to understand the subject matter because it was not sure of her abilities. When students feel uncertain about their ability to understand the subject matter, they will experience difficulties to learn. They tend to feel that any efforts that would do would not be able to help him to understand the subject matter so that it will tend to decide to stop trying.

Referring to the above description, the students who have high self-efficacy are better prepared to choose tasks that are difficult and challenging, and try harder to maintain actions to achieve learning goals than those who have low self-efficacy. Thus, it indicates that students who have high self-efficacy will have a good study regulation. While students who have low self-efficacy will have to experience poor self-regulated learning behaviours.

In this study also found that there is a positive relationship between the regulation of learning and academic achievement. This is consistent with the findings of the various studies which show that that the higher achievers use more self-regulatory strategies, controlling the physical environment in accordance with the needs to learn, seek help when he needs it, and use management skills [6, 10 - 16]. In the context of this study, it has attempted to maintain a learned behavior by venturing into other strategies that are more effective and contribute to the necessary adjustments in learning strategies undertaken by students.

CONCLUSION

Based on the findings, it is concluded that self-efficacy and self-regulated learning greatly Influence the students academic performance. In the findings, it is revealed that there is a positive correlation regarding the three variables

studied; self-efficacy, self-regulated learning, and learning achievement. This means that the higher the score of the respondent on one of the study variables, the higher the score of the respondents on the other two variables, or vice-versa.

Finally, it has also been concluded that students with high self-efficacy are better prepared to choose tasks that are hard and challenging to comprehend and also try as much as possible to maintain their actions in order to achieve learning goals than those with low self-efficacy.

CONFLICT OF INTEREST

The authors confirm that this article content has no conflict of interest.

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