

Self-regulated Learning Effect on Academic Achievement of High School Student

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Abstract

Academic achievement is a success of acquiring new knowledge and skills after performing an optimal learning process. There are external and internal factors that influence academic achievement. This study aims to see the influence of self-regulated learning (SRL) on the academic achievement of class high school students. The sample of this study were high school students in public schools and private schools. The analysis technique is simple linear regression with purposive sampling technique. The results of the study showed that there was a significant influence ($\text{sig} = 0.000$) between SRL on academic achievement of high school students, with a large contribution of 17.1%.

Key Words: *Self-regulated learning, Academic Achievement*

Background

Academic achievement is the result of student learning in on period of time that has been completed with optimal effort. Good academic achievement will indicate students have good learning skills, have a high level of concentration so that they are able to absorb the knowledge conveyed by the teacher. Academic achievement is a change in terms of capability due to the learning process. The results of the learning process can be written or oral, skills and problem solving that can be measured and assessed using standardized tests (Sobur, 2003).

There are three dimensions of academic achievement, including personal dimensions, social dimension and academic dimension. Personal dimension refers to experience, intelligence,

state of mind, clear achievement goals, all things that are in the individual that can affect the level of individual achievement. The second dimension is social dimension, which is the individual's social environment, such as family, social level, parental behavior, and individual attitudes towards the environment. The third dimension is academic dimensions, covering all factors that have a direct and indirect impact on individual achievement, number of students, classrooms, psychological stress, competitive desire (Al-Rofo, 2010)

There are several factors that can affect academic achievement, including internal factors and external factors. One of the internal factors that can affect academic achievement is student learning strategies. Chung (2002) explains that one of the factors that can affect academic achievement is internal control that is self-regulated. Self-regulation in learning or self-regulated learning is a learning strategy used by students to create a more effective learning atmosphere. Students with self-regulated learning are students who are able to compile and manage strategies, determine learning goals, monitor results, having good control of cognition, have motivation and have a supportive environment to achieve the goals that have been set (Filho, in Fasikhah & Fatimah, 2013).

There are three skills in SRL namely planning, monitoring, and evaluation skills (Brown & Nelson, in Basuki, 2004). Several studies have been conducted including research conducted by Sudiastana, Renda, & Murda (2015) whose results show that academic achievement will help students to achieve good academic performance. The research conducted by Febrianela (2013) produced similar results, showing that self-regulated learning has a positive correlation with academic achievement. Other empirical facts obtained from the research of Purwanto (2000) which shows that even though students have a high learning ability but doesn't have ability to regulate themselves in learning , they will not achieve maximum academic performance.

Hypothesis

This research hypothesis is to see whether there is an influence between self-regulated learning on high school student achievement

Methods

Respondents of this study amounted to 191 participants. The population and sample of this study were high school students in two different schools, public schools and private schools. The technique sampling is purposive sampling and the data will be analyzed using simple linear regression via SPSS ver 22

Self-regulated learning is the ability of a person to personally direct their self to acquire new knowledge and abilities and not wait for teachers, parents, or others to give instructions (Zimmerman, 1989). To measure students' self-regulated learning, researchers used the Self-regulated Learning scale which was compiled based on Zimmerman and Martinez-Pons self-regulated learning aspects (1988) with a reliability of 0.875 consisting of 33 items. Those who use the Likert choice of answer scale 1 – 5 that means strongly agree that they strongly disagree, while the item example used is "I discuss assignments with classmates before going home", "I check or re-read all notes on today's subject matter".

Academic achievement is an achievement that consist both of ability and skill of student to absorb what they learn. Academic achievement is multidimensional that related to human development, named the development of cognition, emotion, social, and physical growth (Steinberg in Basuki, 20005). To measure student academic achievement, measured by the report card grades achieved by students. Researchers have asked permission to get the required report card.

Result

The table below is a table that describes the relationship between one independent variable and one dependent variable, namely self-regulated learning and academic achievement. Self-regulated Learning – Academic Achievement

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.414 ^a	.171	.167	2.81799

a. Predictors: (Constant), SRL

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	309.734	1	309.734	39.004	.000 ^b
Residual	1500.867	189	7.941		
Total	1810.601	190			

a. Dependent Variable: PRESTASI

b. Predictors: (Constant), SRLGUI

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	73.344	2.016		36.373	.000
SRLGUI	.103	.017	.414	6.245	.000

a. Dependent Variable: PRESTASI

Discussion

From the results of data processing, obtained a value of $F = 39.004$, R square of 0.171 and a significance value of 0.000 ($p < 0.001$), then the research hypothesis proposed by researchers stating that there is an influence between self-regulated learning on academic achievement of high school students is accepted.

Several studies have similar results with this study, including the research conducted by Sudiastana, Renda, and Murda (2015) which conducted a research on 131 students to test whether there were differences between students who applied self-regulated learning and those who did not apply self-regulated learning. The results show that there are differences between the two groups. Academic achievement of students who apply self-regulated learning is higher than students who do not apply self-regulated learning. The research conducted by Febriana (2013) showed a significant relationship between self-regulated learning and academic achievement in 3 different private schools. Hani'ah (2013) conducted a study to determine whether there was an effect of self-regulated learning on academic achievement in high students

class X, the results showed that self-regulated learning contributed 17.5% to the academic achievement of students.

This self-regulated learning provides an opportunity (autonomy) to students to do and manage their own learning, as well as providing opportunities for students to undergo an active process to self-regulate, self-directed to develop learning goals, control their own learning processes, develop motivation itself, the learning environment is to support the effectiveness of learning (Sudiastana, Renda, Murda, 2015). Dewey, Gagne, and Marzano (in Sudiastana, Renda, Murda, 2015) self-regulated learning is based on constructivism, that learning systems are designed and managed in such a way that they can encourage students to organize their own experiences into meaningful new knowledge. Students with self-regulated learning have the freedom to carry out their learning activities in accordance with the conditions that are best for themselves. Besides that students can have discussions with peers or teachers

Contributions given by self-regulated learning in this study were classified as weak (17.1%) in supporting academic achievement. Based on Bandura Triadic Reciprocally, there are 3 factors that influence self-regulated learning in students, including self, environment and habits.

In this study, students who were participate on this research are student who sits in normal class both students who in public high school or private high school, means they are not classified into the best students on their school who sits in special class. This causes the researcher to get a variety of self regulated learning scores, which indicate that there will be differences in learning motivation that can support the formation of self-regulated learning. The habit factor is also a determinant of the formation of self-regulated learning, whether he is accustomed or not in recording, asking questions, seeking answers to the characteristics of a person to form self-regulated learning in themselves, this is supported by the research of Judd (2005) where there are differences in self -regulated learning of students who sit in superior and non-superior classes, superior classes. Students who sit in the superior class more often use self-regulated learning strategies than students who sit in the non-excellent class. Excellent class students are more often looking for the right answers if the exam has the wrong answers, is more active in asking when in class, and more closely monitors the values obtained compared to students who sit in non-excellent classes

Weak contribution of 17.1% indicates the remaining 82.9% is influenced by other factors not explained in this study including personality, self-efficacy, motivation, self-concept, interests, talents, and other variables

Limitation

The research scale that still has many items that have a low correlation value needed for revision, this study also needs to add other variables that can support academic achievement. The need to add reference journal references to get more comprehensive results

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