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The Effect of Self-Regulated Learning and Learning Motivation on Economics Learning Achievement

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Abstract

This study aimed examine the influence of self-regulated learning and learning motivation on student economic learning achievement in online learning. This study uses a quantitative approach method. This study uses primary data derived from questionnaire answers distributed to respondents via a google form. This study indicates that self-regulated learning significantly affects students' economic learning achievement with a sig. value of 0.00 <0.05. Learning motivation has a positive and significant effect on students' economic learning achievement with a sig. value of 0.02 <0.05. The results of the F test state that Self-regulated learning and learning motivation simultaneously affect students' economic learning achievement in online learning, with an F-count > F-table of 21.851 > 3.06 and has a significant percentage value of 0.00 < 0.05.

Keywords: *Self-Regulated Learning; Learning Motivation; Learning Achievement*

Introduction

The COVID-19 pandemic has resulted in a change in the teaching and learning system, classroom learning has changed to online learning. Online learning is a knowledge transfer experience using internet, video, audio, images, text communication, and software (Basilaia & Kvavadze, 2020). Infrastructure that supports free online learning through various discussion rooms includes Google Classroom, WhatsApp, Smart Class, Zenius, Quipper, and Microsoft (Abidah et al., 2020). online learning provided by the institution has not yet achieved the learning objectives that have been set. (Liguori & Winkler, 2020).

Changes in conventional learning methods to virtual learning cannot happen overnight, so it has challenges at this time (Crawford et al., 2020). But since no one knows when this pandemic will disappear completely, educational institutions worldwide have decided to use the available technical resources to create learning materials online for students in all academic fields (Kaur, 2020). Online learning in the Covid-19 era triggers several student problems, such as problems in managing their learning and concerns in participating in learning activities which will affect learning achievement (Abisha Meji & Dennison, 2020). There was a decrease in student learning outcomes in learning in the Covid-19 era (Sintema, 2020).

Interviews were conducted with the economics teacher at Senior High School 1 Simo. The results of the final assessment of the 2020/2021 odd semester delivered by the economics teacher, information was obtained that as many as 70% of students in class X IPS, 72% of students in class XI IPS, and 69% of students in class XII IPS have lower scores than KKM (Minimum Completeness Criteria). So, the teacher must do remedial for students by providing additional tasks to meet the KKM.

The researchers conducted interviews with several students of SMAN Simo, class XI IPS, who were doing online learning. According to the results of interviews, students experienced problems during the online learning process, including limited internet network that was less stable in accessing internet zoom and google meet. Hence, students found it difficult to follow and understand the material. In addition, students also complained about the number of assignments given by the teacher so students had difficulty managing time.

The use of appropriate digital learning tools in online learning can affect student academic achievement (Salvo et al., 2019). Yuzarion (2017) explains that variables affect learning achievement consisting of 2 factors, namely internal and external. Internal factors that affect learning achievement include self-regulated learning in students. External factors include parents' attitude to children and the attitude of teachers to students.

Self-Regulated Learning

Self-regulated learning (SRL) is proposed as an alternative strategy to facilitate students' digital learning environment and learning achievement. Self-regulated a process, This can be seen in the tendency of students to direct their learning (Brockett & Hiemstra, 2018). According to Siagian et al. (2020), independent learning of students is freed in determining their learning strategies and learning resources used without depending on others.

Self-regulated learning has a significantly affects on learning achievement, A good teacher will be able to organize and develop the methods used in learning activities to become directions in achieving academic results (Alotaibi et al., 2019). Groups of students with low self-regulated learning have lower learning outcomes. In contrast to individual groups of students with high self-regulated learning, their learning outcomes are also higher (Dörrenbächer & Perels, 2016).

The learning achievement of high school students was influenced by motivation and self-regulated learning (Cleary & Kitsantas, 2017). Self-regulated learning significantly correlates with a student's academic results (Shing & Rameli, 2020). Other studies also reveal similar results, that there is a positive and significant effect between self-regulated learning and academic achievement. (Yahaya et al., 2020). Different results are shown that self-regulated learning is not related to academic results (Saraswati, 2017).

Learning Motivation

learning motivation is one of the factors that influence learning achievement and cognitive abilities. (Duncan & McKeachie, 2005). According to Uno, (2019), motivation is a driving force that can move an individual in achieving the goals set in the field of education, namely learning goals. Motivation can change student behavior with goals, needs and desires. (Sulfemi, 2018). Sudjana (in Novalinda et al., 2018) learning motivation is reflected in the attitude of attention, enthusiasm and responsibility in carrying out the tasks given by the teacher.

Dennis & Stockall (2015) explained that learning motivation is a condition for long-term, effective, and meaningful learning. Learning motivation has a positive influence on learning achievement (Tokan & Imakulata, 2019). Chen (2017) explained that learning motivation has significantly effects on learning effect in learning achievement. Motivation has a positive and significant effect on learning

outcomes (Islamiyah, 2019). The study found a significantly affect of learning motivation on learning outcomes because motivation is a way to improve learning outcomes (Efriza et al. 2020).

Learning Achievement

Slavin (2009) explained that student learning achievement is measured by the competencies that are the learning objectives or behavioral goals that students can understand. Learning achievement is evidence of the learning process and having knowledge, skills, or attitudes (Puspitasari et al., 2020). Learning achievement shows the level of success of students after learning. (Sjahrir et al., 2020).

One indicator of the achievement of learning objectives is the results of student achievement. Learning achievement is the result of students obtained after participating in classroom learning activities (Syafi'i et al., 2018). It is concluded that learning achievement is the output or final result in the student learning process which can be expressed through values or numbers regarding mastery of the material.

Self-regulated learning and learning motivation simultaneously affect students' learning outcomes in online learning (Ningtiyas & Surjanti, 2021). Self-regulated learning and learning motivation together have a positive and significant effect (Selimayati, 2021).

This study aims to test the effect of Self-regulated learning and learning motivation on student economic achievement in online learning at Simo 1 Public High School.

Hypotheses

H_1: Self-regulated learning has a positive and significant on economics learning achievement.

H_2: Learning motivation has a positive and significant on economics learning achievement.

H_3: Self-regulated learning and learning motivation simultaneously has a positive and significant on economics learning achievement.

Based on theoretical explanations, research findings, and developing hypotheses regarding the influence of self-regulated learning and learning motivation on learning achievement. The research framework in (figure 1) is as follows:

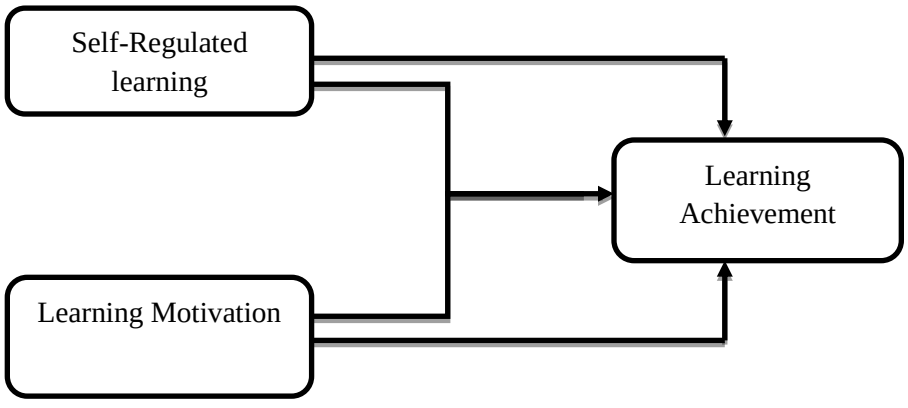

Figure 1. Research Framework

Research Method

This study uses a quantitative approach. Data collection uses quantitative or statistical research instruments. Quantitative research methods aim to test the established hypotheses. quantitative research is used to test the variable x against y through numbers.

The indicator variables are described in Table 1.

Table 1 Indicator variable

Variable	Indicator
Self-regulated learning (Zimmerman, 1989)	Rehearsal, elaboration, organization, metacognitive self-regulation, time and study environment, effort regulation, help-seeking.
Learning motivation (Duncan & McKeachie, 2005)	Intrinsic goal orientation, extrinsic goal orientation, task value, control of learning beliefs, test anxiety
Learning achievement	Cognitive domain, affective domain, psychomotor domain.

This research was conducted at Senior high school 1 Simo. The population in this study were, total of 132 students of class XI IPS. The sampling technique used is a saturated sample with the entire population being the sample, namely 132 students. Data collection techniques in this study used a questionnaire and documentation.

This research uses primary data derived from the results of questionnaire answers distributed to respondents via a google form, including a self-regulated learning questionnaire and learning motivation. At the same time, secondary data obtained by the author is from the odd semester final semester test.

Result and Discussion

Based on a series of validity and reliability tests on the questionnaire used in this study with the SPSS application program, it is known that self-regulated learning and motivation questionnaires consist of 24 statement items. 20 items were declared valid because they had a significance level above 0.632, and 4 items were declared invalid because they had a significance level below 0.632. This study, if an invalid statement item is found, the steps taken by the item are discarded and not used in the study so that the total items in the self-regulated learning questionnaire statement and learning motivation used are 20 items.

The results of the normality test the data obtained the Asymp. Value Sig. (2-tailed) of 0.210 > 0.05, it shows that the data self-regulated learning, learning motivation and learning achievement are normality distributed. For the linearity test results, the Deviation from Linearity X1 value was obtained at 0.104 and the Deviation from Linearity X2 value was obtained at 0.110. Both values are greater than 0.05 so the decision was taken that regression model passed the linearity test.

The result of the multicollinearity test showed that the tolerance value of X1 and X2 was 0.155,

while the value of VIF X1 and VIF X2 was 8.725. Based on these results, it is known that the tolerance values for X1 and X2 are greater 0.11, and the VIF values for X1 and X2 are less than 10, so it is decided that the regression model is free from multicollinearity. Meanwhile, for the heteroscedasticity test, it is known that the acquisition of significance for X1 is 0.725, and the acquisition of significance for X2 is 0.406. The two acquisitions of significance probability are greater than 0.05, so that the decision is taken that the regression model is free from heteroscedasticity.

Table 2. T-statistic test

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	76.466	2.168		35.269	.000
	Self-Regulated	.295	.072	.362	4.071	.000
	Motivation	.134	.057	.210	2.364	.020

a. Dependent Variable: learning achievement

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Based on Table 1, the significance value of the variable X1 (Self-Regulated learning) is 0.000 < 0.05. Based on these results, it is informed that the X1 variable (self-regulated learning) positively and significantly affects the Y variable (economic learning achievement) of students in online learning. The results of the analysis state that self-regulated learning has a significant positive effect on learning achievement during online learning. Based on the results of the t-test statistic for self-regulated learning, the value of t-count > t-table of 4.071 > 1.656 has a significant contribution of 0.000 < 0.05. Thus, self-regulated learning has a positive and significant effect on economics learning achievement. The first hypotheses can be accepted.

Harahap et al. (2020) self-regulated learning can be categorized in the moderate phase. So, it can be concluded that the strategies that students use to regulate themselves during teaching and learning activities (self-regulated learning) during the COVID-19 pandemic are good. Rafsanjani et al., (2020) explained that the relationship of self-regulated learning had a positive effect on student learning achievement during online learning. The results of the study can be stated that the higher the ability of self-regulated learning (self-regulating in learning activities), it will be easier for students to achieve better and improved learning achievements.

Many studies related to self-regulated learning have been carried out, the results obtained are very diverse and research on self-regulated learning and learning achievement. Some research results show a positive influence between self-regulated learning and academic achievement. Still, some also find a negative influence between self-regulated learning and learning achievement.

The Effect of Learning Motivation on Economics Learning Achievement in Online Learning

Based on Table 1, the significance value X2 variable (learning motivation) is 0.020 < 0.05 and the t-count is 2.364> 1.656. According to the analysis, learning motivation has a considerable positive impact on economics learning achievement during online learning. Based on the results of the t-test of learning motivation statistics, the value of t-count > t-table of 2.364 > 1.656 has a significant contribution

of 0.020 <0.05. Thus, it is stated that learning motivation has a simultaneous effect on student achievement during online learning. The second hypotheses can be accepted.

The results of Emda, (2018) state that to obtain success in a learning process, a student must have high motivation in carrying out learning activities. The pandemic conditions that make it difficult for many parties require an online learning system that makes it difficult for students to interact with friends and teachers. In these problems, students must be able to manage themselves independently so that they remain enthusiastic and do not despair, with the motivation that becomes the basic impulse that makes people move to behave an impulse.

Table 3. F. test

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	448.823	2	224.411	21.851	.000[b]
	Residual	1324.837	129	10.270		
	Total	1773.659	131			

a. Dependent Variable: ACHIEVEMENT

b. Predictors: (Constant), MOTIVATION, SELF REGULATED

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From the F-statistic test conducted by the researcher, it was found that the value of F-count > F-table of 21.851 > 3.06 and has a significance percentage value of 0.00 < 0.05. Thus, it is stated that Self-regulated learning and learning motivation have a simultaneous and significant effect on the variable of student achievement during online learning. From the two research results between the previous variables that have been partially discussed, together the Self-regulated learning and learning motivation variables have a positive and significant influence on economics learning achievement.

In this study, the attitudes observed were: self-regulated learning (independent learning) and learning motivation. Asy'ari et al., (2019) explained that self-regulated learning as the ability to behave alone, and is the hard work of the human personality. Meanwhile, according to Zimmerman (in Wijaya & Bukhori, 2017), self-regulated learning is a learning process-oriented toward achieving a goal.

Students who are independent when studying and trying to complete their tasks properly and seriously will achieve learning goals, strategies for self-regulation in learning can be characterized by planning the proper learning process, such as setting clear goals when studying, identifying success and failure, problems faced when studying, as well as choosing various methods of learning and completing assignments. After going through the planning stage, students are expected to be able to implement the strategy according to the plan then evaluate the results that have been carried out with standard measures of success such as being diligent when completing assignments from the teacher on time and trying to get good grades.

Rahmi & Rayhana, (2020) reported that students who have internal motivation will always be enthusiastic about participating in all subjects without any coercion. Andriani & Rasto, (2019) revealed that students' motivation to formulate goals and strategies in learning related to the success of achieving

goals in learning. Students who are motivated in their learning tend to get maximum learning outcomes.

Table 4.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.505[a]	.255	.243	3.20148

a. Predictors: (Constant), MOTIVATION, SRL

b. Dependent Variable: ACHIEVEMENT

Based on the table, determine the contribution of the independent variables of Self-regulated learning and learning motivation explaining the dependent variable of learning outcomes, the coefficient of determination test was carried out. Table 4 shows the R Square value of 0.255, which means that self-regulated learning variables and learning motivation contribute to learning outcomes by 25.5% While the remaining 74.5% is influenced by other variables not discussed in the study. Based on the analysis of the data obtained, it shows that students who have motivation in learning and are able to learn independently, obtain high learning outcomes. On the other hand, students with low learning motivation and less independent learning get lower academic results. Motivation to learn is needed by students.

Independent learning is needed in learning during a pandemic because of the lack of interaction and supervision from teachers who are only done online so they cannot directly control learning activities. Online learning can create flexibility in the implementation of learning activities and can encourage the emergence of independence and motivation of students in learning (Muliadi et al., 2020).

Based on research findings, it was found that the self-regulated learning and learning motivation during online learning during the Covid-19 pandemic had a simultaneous effect on the economic learning achievement of students at Senior high school 1 Simo. It is hoped that this research can add to the scientific repertoire of relevant research.

The limitation of this research is that the variables studied only examine two factors influencing learning achievement, namely Self-regulated learning and learning motivation. In this study, students' learning achievement was devoted to economics in XI Social Studies Department at Senior high school 1 Simo in the odd semester of the 2021/2022 academic year. This study was carried out online because as a result of the condition of the learning system during the Covid-19 pandemic.

Conclusion

Based on the previously given research findings, it is possible to deduce that:

(1) partially there is a positive and significant influence between self-regulated learning and students' economic learning achievement; (2) partially there is a positive and significant influence on learning motivation on economics learning achievement; (3) Simultaneously there is a significant effect between Self-regulated learning and learning motivation on students' economic learning achievement in online learning.

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