

## Effects of Learning Facilities and School Environment through Self-regulation on the Learning Interests of Primary School Students

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### Abstract

Interest in learning is an important aspect for students in the teaching and learning process. Student learning interest arises influenced by various factors including learning facilities, the school environment and self-regulation. The purpose of this study is to determine the effect of learning facilities and the school environment through self-regulation on the learning interests of elementary school students. This research is a correlational study with a cross sectional study approach. There were 138 students taken as sampling from the total population. The instrument used was a questionnaire and data analysis was performed statistically, with multiple regression test. The results showed that learning facilities affect student learning interest. The school environment influences student interest in learning and self-regulation moderates the influence between learning facilities and the school environment on student interest in learning.

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## INTRODUCTION

Education becomes the spearhead in the framework of building a nation and the country becomes more advanced with its human resources. In line with the functions and objectives of education that are in Law number 20 of 2003 concerning the National Education System which states that national education functions to carry out the ability and shape the character and civilization of a dignified nation in order to educate the life of the nation, aiming at developing the potential of learners to become human beings who have faith and devote to God Almighty, noble, healthy, knowledgeable, capable, creative, independent, and be a democratic and responsible citizen. A motivating factor is needed to influence people in an effort to create the objectives of Law number 20 of 2003, one factor is learning.

Learning is a process carried out by students to obtain a change in behavior as a whole, as a result of students' own experiences in interactions with their environment (Nurhasanah and Sobandi, 2016). The factors that influence learning are internal factors (spiritual physical condition and condition), external factors (environment) and learning approach factors (Maesaroh, 2013). These three factors are interrelated in influencing student learning, where the will or interest gained from encouraging these factors will lead students to positive behavior in learning (Hapnita et al., 2018).

Interest is a constant tendency to pay attention constantly with pleasure (Siagian, 2015). Student learning interest is the most important thing that exists in students that affect the smooth teaching and learning process (Awe and Benge, 2017). Student learning interest arises because it is influenced by various factors, including learning facilities and the school environment. Learning facilities are all things both facilities and infrastructure that can facilitate and assist the learning process (Puspitasari, 2016). While the school environment is all components or parts contained in the school, all components and sections have an influence and support in the

process of achieving educational goals in schools (Ikhsan et al., 2017). The self-regulation is the regulation/control of oneself, in this study it is used as a moderating where several studies show that self-regulation of the environment significantly on learning outcomes (Hermanto et al., 2018). Self-regulation is the strength or ability of individuals to achieve the skills or goals to be achieved (Connor and Day, 2016). Self-regulation or good self-control will greatly affect the learning process and determinants of achievement (Pangestika and Manurung, 2016).

Based on the results of a survey conducted in three Islamic elementary schools in the sub-district of Bumiayu, Brebes Regency, namely Ta'alumul Huda Islamic Elementary School, Muhammadiyah Elementary School and Al-Ambari Integrated Islamic Elementary School, the results show that there is a gap between the expectations and the resulting reality, where schools with good facilities and environments do not necessarily obtain the expectations of students with good interests. Therefore it is important to investigate the effects of learning facilities and the environment high self-regulation on student learning interests. The purpose of this study is to determine the effect of learning facilities and the school environment through self-regulation on the learning interests of elementary school students.

## METHODS

This research is a correlational study with a cross sectional study approach. The research subjects used were 138 students taken in total sampling from the total population. Ta'alumul Huda Islamic Elementary School has 58 students, Muhammadiyah Elementary School has 53 students and Al-Ambari Integrated Islamic Elementary School has 27 students. The research subjects are grade V students from each elementary school were considered to be more cooperative and easier to follow the research procedures to be carried out and understand the questions attached in the questionnaire sheet of each research variable.

Learning facility variables in this study, namely school learning facilities and home learning facilities both facilities and infrastructure. The school environment under study is the social environment. Self-regulation is students' abilities in managing self-determined standards and goals, self-monitoring, self-evaluation, self-determined consequences of success or failure. As for the interest in learning that is students' happy feelings, involvement, interest and attention of students during the teaching and learning process.

Retrieval of data using a questionnaire measuring tool that is distributed and filled out by students. Data analysis used univariate analysis in the form of a table/distribution to

explain the characteristics and results of each variable. Bivariate and multivariate analysis were used as a multiple regression test to determine the presence or absence of influence between the dependent and independent variables and whether self-regulation can moderate the influence of the dependent and independent variables.

**RESULTS AND DISCUSSION**

The study was conducted in three elementary schools on February 24-29, 2020. Characteristics of respondents consisting of gender and age of respondents are presented in Table 1.

**Table 1.** Characteristics of Respondents

Characteristics of respondents	Frequency	Percentage (%)
<b>Gender</b>		
Male	55	40
Female	83	60
Total	138	100
<b>Age group (years)</b>		
10	28	20
11	110	80
Total	138	100

Students with 10 years old are 28 (20%) students and 11 years old are 110 (80%) students. All respondents included in class V elementary school.

Univariate analysis aims to explain or describe the characteristics of each research variable. In this study the results of the analysis

are presented in the form of a frequency distribution of each variable. Table 2 presents the distribution of variables related to learning facilities, school environment, self-regulation and interest in learning the results of calculations from the research data obtained.

**Table 2.** Frequency Distribution of Research Variables

Variable	Frequency	Percentage (%)
<i>Learning facilities</i>		
Good	19	14
Moderate	95	69
Low	24	17
Total	138	100
<i>School environment</i>		
Good	19	14
Moderate	98	71
Low	21	15
Total	131	100
<i>Self-regulation</i>		
Good	25	18
Moderate	94	68
Low	19	14
Total	138	100
<i>Interest to learn</i>		
High	28	20
Moderate	88	64
Low	22	16
Total	138	100

Based on Table 2, it is known that the majority of students with learning facilities namely learning facilities at school and at home learning facilities both facilities and infrastructure in the moderate category are 95 students (69%). The majority of students in the school social environment are in the moderate category of 98 students (71%). This can be interpreted that the social environment that is intertwined, both between students or students with teachers has been formed, helping each other, mutual attention and interact/ relate well. Most students with self regulation in the moderate category were 94 students (68%). This can be interpreted that most students have been able to set standards and goals set, self-monitoring, self-evaluation, self-determined consequences of the success or failure of learning facilities and the school environment in growing interest in learning for better performance. Most students with moderate interest were 88 students

(64%). This can be interpreted that most students have an enthusiasm or desire that is something that is to be achieved.

Bivariate analysis is carried out to test whether there is an influence between the dependent variable and the independent variable. In the bivariate analysis each dependent variable will be correlated with the independent variable so that the presence or absence of influence is known. The statistical test used is multiple regression (multiple regression) where, in the bivariate analysis, it aims to answer the first and second hypotheses. The data obtained is known that all have a normal distribution and do not have problems related to multicollinearity, heteroscedasticity and autocorrelation. The results of testing the hypothesis of the effect of learning facilities and the school environment on learning interest are presented in Table 3.

**Table 3.** Hypothesis Testing Results

Variable	<i>p-value</i>
Learning facilities – interest in learning	0.033
School environment – interest in learning	0.002

Table 3, the results of statistical tests obtained p-value of learning facilities by 0.033 (<0.05), school environment 0.002 (<0.05). It can be concluded that learning facilities and the school environment have a positive and significant impact on student interest in learning. Description of the effect of learning facilities on learning interest.

Multivariate analysis used in processing a variable with a large number, where the aim is to look for the influence of these variables on an object simultaneously or simultaneously. In this

study multivariate analysis was performed by test multiple regression to test hypothesis III (third) and hypothesis IV (fourth), namely whether self regulation moderates the effect of learning facilities on student interest in learning and can moderate the influence of the school environment on student interest in learning. Hypothesis testing results related to self-regulation moderation on the influence of dependent and independent variables are presented in Table 4.

**Table 4.** Hypothesis Testing Results

Variable	<i>R-Square 1</i>	<i>R-Square 2</i>
Learning facilities and learning Self-regulation interest	0.442	0.558
School environment and interest in learning	0.463	0.568

Table 4, the results of statistical tests note that the variable learning facilities and interest in learning the value of R-Square in the first test without involving self-regulation obtained 0.442 or 44.2%. While the value of R-Square in the second test rose to 0.558 or 55.8%. It can be concluded that the existence of self-regulation will be able to strengthen the influence of learning facilities on student interest in learning. While the school environment variables and interest in learning the value of R-Square in the first test without involving self-regulation obtained 0.463 or 46.3%. While the value of R-Square in the second test rose to 0.568 or 56.8%. It can be concluded that the existence of self-regulation will be able to strengthen the influence of the school environment on student interest in learning.

#### **Learning facilities affect student interest in learning**

Most students with learning facilities, namely school learning facilities and home

learning facilities, both facilities and infrastructure, are currently in the category of 95 students (69%). The statistical test shows the p-value of 0.033 (<0.05) which can be interpreted that learning facilities have a positive and significant influence on student learning interest. It is known that students with moderate facilities will be followed with moderate learning interest.

Chepkonga (2017) states that facilities are a very important component in shaping quality education. Learning facilities are a means of supporting learning success, infrastructure or vehicles to do or make things easier and to help achieve educational goals. Learning facilities have an important role in the learning process. The availability of learning facilities is very influential on the ease and smooth running of teaching and learning activities. Adequate learning facilities will make it easier to achieve goals, learning facilities that are well available will produce motivation and good learning achievement (Juliasari and Kusmanto, 2016). The adequate number of school facilities

positively influences the teaching and learning process in schools. The condition of school facilities has an important impact on student performance in this regard, namely student learning interest. As interest is one factor.

The theory is also supported by the results of research from Nur (2015) with the title influence of learning tools on student interest in learning that learning facilities have a positive and significant influence on student interest, adequate learning facilities will lead to high learning interest in students. Sandiar et al. (2019) in his study entitled the role of learning facilities on learning interest and its influence on students states that there is a positive significant effect of learning facilities on student learning interest. Learning facilities will provide great benefits for the continuity and success of the learning process.

High student learning interest will be influenced by various factors, one of which is learning facilities. Clary et al. (2017) in their research stated that the lack of good learning facilities will negatively affect the quality of the education process. The results of testing together by correlating learning facilities and the school environment to students' interest in learning showed significant results, namely p-value 0.033 ( $<0.05$ ). It can be interpreted that with adequate learning facilities and supported by the existence of a good school social environment will provide a more positive and significant impact on student interest in learning. 033 ( $<0.05$ ). It can be interpreted that with adequate learning facilities and supported by the existence of a good school social environment will provide a more positive and significant impact on student interest in learning. 033 ( $<0.05$ ). It can be interpreted that with adequate learning facilities and supported by the existence of a good school social environment will provide a more positive and significant impact on student interest in learning.

#### **School environment influences student interest in learning**

The majority of students in the school social environment are in the moderate category

of 98 students (71%). This can be interpreted that the social environment that is intertwined, both between students or students with teachers has been formed, helping each other, mutual attention and interact/well related. Testing of school environment variables with student interest in learning obtained a p-value of 0.002 ( $<0.05$ ) which can be concluded that the school environment has a positive and significant influence on student learning interest. It is known that students in the medium school environment will be followed by moderate learning interest.

The school environment is all components or parts contained in the school, where all components and sections have an influence and support in the process of achieving educational goals in the school (Ikhsan et al., 2017). The school environment plays a role in providing all the needs of students during the learning process. With a complete school environment, the teaching and learning process will run as expected.

The school environment has an important role on children's success, if the school environment is positive, there are relationships that are stimulating or guiding fellow friends or teachers, the possibility of students can achieve good learning achievement. Conversely, when harmony/good relations are not created and the kinship system is increasingly tenuous, then that's when the school environment does not create and provide something creative for children's learning. Such a school environment contributes to children's learning difficulties, usually children tend to be lazy to learn, and have low interest in learning (Setiani et al., 2017).

Nurhayati and Dewi (2017) in their study entitled the influence of the school environment on students' interest in learning states that the school environment is the interaction of teachers and students, the relationship between students, curriculum, building conditions (facilities and infrastructure), the implementation of discipline and methods of learning to influence/determine interests student learning. The school environment is the vehicle most commonly used

as a learning medium in the teaching and learning process. An adequate school environment will also determine the success of student learning. Damanik (2019) in his study entitled the effect of facilities and learning environment on learning motivation also states that the environment influences students' motivation/willingness to learn positively and significantly. Cohn and Fraser (2015) stated that an adequate and complete school environment would provide high student achievement compared to schools with an inadequate environment. The results of testing together with correlating learning facilities and the school environment to students' interest in learning show significant results namely p-value 0.033 ( $<0.05$ ) which can be interpreted that with adequate learning facilities and supported by a good school social environment will provide more positive and significant influence on student interest in learning

#### **Self-regulation moderate the effect of learning facilities on student interest in learning**

Based on the results of research that has been done, the results obtained that the value of R-Square in the first test without involving self-regulation obtained 0.442 or 44.2%. While the value of R-Square in the second test rose to 0.558 or 55.8%. It can be concluded that the existence of self-regulation will be able to strengthen the influence of learning facilities on student interest in learning. So  $H_a$  is accepted and  $H_o$  is rejected, namely self regulation moderating the effect of learning facilities on student interest in learning.

Self-regulation is the strength or ability of individuals to achieve the skills/goals to be achieved (Connor et al., 2016). Self-regulation is a conscious effort of students in managing matters related to their learning independently. Student learning success can be realized through self-regulation in good learning. The more students are able to regulate their learning, then they will be able to achieve the desired goals. Alexander in Astutik (2016) states that high-achieving students are often self-managed learning. Based on this theory, the researcher

concludes that self-regulation can moderate the effect of learning facilities on learning interest, so in this study self regulation is determined as a moderating variable.

Astutik (2016) in his study entitled the effect of self-regulation and the availability of learning facilities on learning outcomes states that learning facilities are an important component in teaching and learning activities. Learning facilities can support the learning process because complete facilities can foster student interest and attention to pay attention and master the material delivered by the teacher. Likewise with self-regulation where research results show that self-regulation will affect student learning outcomes, good learning outcomes can be obtained when students have been able to apply learning in themselves well.

#### **Self-regulation moderate the influence of the school environment on student interest in learning.**

Based on the results of research that has been done, the results obtained that the R-Square in the first test without involving self-regulation obtained 0.463 or 46.3%. While the value of R-Square in the second test rose to 0.568 or 56.8%. It can be concluded that the existence of self-regulation will be able to strengthen the influence of the school environment on student interest in learning. So  $H_a$  is accepted and  $H_o$  is rejected, namely self regulation moderating the influence of the school environment on student interest in learning.

Just as self-regulation moderates the effect of learning facilities on learning interest, it is known that self-regulation is a conscious effort of students to regulate matters related to their learning independently and is one of the determining factors for student learning success, in terms of moderating the influence of the environment even schools of interest in learning have the same conditions where, if the availability of an adequate school environment is supported by good student self-regulation, it will affect student interest in learning.

Puspasari and Wahyudin (2015) in their study entitled the role of self-regulation learning in moderating the influence of peer environment and social media on student achievement states that there is a positive and significant influence of peer environment and social media on student achievement. The better or higher the interaction environment of peers with the support of self-regulated learning owned by students, the better student achievement will be.

Azizah et al. (2017) in their study entitled the role of self-regulation in moderating the influence of family parenting and the school environment on the achievement of elementary school students also mentioned that self-regulation has a positive role in moderating the influence of the school environment on student achievement. This is in line with the learning theory proposed by Vygotsky (Elliot, 2003) in Nurhidayati (2017) constructivist learning theory of learning is a process that involves two important elements. First, learning is a biological process as a basic process. Second, the psychosocial process as a higher process and its essence related to the socio-cultural environment. So continued Vygotsky, the emergence of a person's behavior is due to the intervening of the two elements. When a person gets a stimulus from his environment, he will use his physical form of sensory devices to capture or absorb the stimulus, then by using his brain nerves the information that has been received is processed.

The involvement of the sensory organs in absorbing stimuli and the brain's nerves in managing the information obtained is a physical-psychological process as a basic element in learning. When a student gets a stimulus from his peer environment, then the information received is processed through a self-regulation in learning called self-regulated learning so that students can determine the influence that a peer environment has on student achievement.

## CONCLUSION

The results of the study concluded that learning facilities and the school environment

had a positive and significant effect on student interest in learning. Self-regulation positively moderates the effect of learning facilities and the school environment on students' interest in learning.

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