SELF-EFFICACY AND SELF-REGULATION WITH ACADEMIC PROCRASTINATION IN MUSLIM ADOLESCENTS DURING THE ONLINE LEARNING PERIOD

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ABSTRACT

This study aims to determine the relationship between self-efficacy and self-regulation with academic procrastination in Muslim adolescents during online learning. The research method used in this research is correlational quantitative. The subjects of this study were Muslim adolescents in one of the public high schools in Palembang. The sample of this study was 298 people taken by quota sampling technique. The instruments used are the self-efficacy, self-regulation, and academic procrastination scale. The results of data analysis with multiple regression analysis (assisted by SPSS version 26) showed that there was a significant relationship between self-efficacy and self-regulation with academic procrastination in online learning ($Y = 237.034 + - 0.427X1 + - 0.241X2$); ($p<0.05$) so that the research hypothesis is accepted with the effective contribution of X1 and X2 simultaneously on academic procrastination by 27%, while other variables outside this study influence the remaining 73%. Self-efficacy and self-regulation were negatively and significantly associated with academic procrastination in online learning ($rx1 = -0.420$; $rx2 = -0.400$; $p<0.05$). It means that when the level of self-efficacy and self-regulation is high, the level of academic procrastination tends to be below. Conversely, when the level of self-efficacy and self-regulation is low, the level of academic procrastination tends to be high.

Keywords: Self-Efficacy, Self-Regulation, Academic Procrastination, Muslim Adolescents, Online Learning

INTRODUCTION

Muslim adolescents are humans in the stage of adolescent development known as Yafi' (Adolanse). Humans as teenagers can already search for "self-identity at this stage." Forming this identity indeed leads to the development of a steady direction of individuality. In education, Yafi's age is generally in high school. Muslim adolescents, of course, must understand the essence of one of the obligations, namely learning.

Islam views learning as a process that every Muslim must carry out. The hadith regarding the obligation to study narrated by Ibn Majah that "seek knowledge is an obligation for every Muslim" (HR. Ibn Majah no.224). In the academic world, Muslim adolescents, as the main subject who take the learning process, are responsible for doing school assignments well. Students will learn efficiently if they have the right strategy (Roestiyah, 2012). Students will, of course, face various kinds of obstacles that can affect their success and potential (Kandemir, 2014). Moreover, the current Covid-19 Pandemic has dramatically changed the teaching and learning activities system. Both teachers and students are forced to be able to adapt to the circumstances and obstacles they will face.

The Minister of Education and Culture addressed the issue of the Covid-19 Pandemic by issuing circular letter No. 3 of 2020 to minimize human interaction. The circular contains several important points, including 1) Every event involving many people is transferred online using video conferencing; 2). Officials from every level are responsible for preventing and handling Covid-19; 3). All

employees are required to work from home with discipline; 4). Leaders and sick employees are required to rest at home; 5). Kemdikbud employees are provided with shuttle transportation facilities; 6). Documentation and correspondence systems must be adequately maintained so that students and teachers can use them to work remotely; 7) The Head of the Data and Information Center coordinates with the general bureau and the procurement of goods and services to prepare learning facilities such as video conferencing, digital documents (Putu et al., 2020)

Online learning is a solution that is considered appropriate to be applied to limit the spread of the virus while continuing to teach and learn online. Online learning is applied to all lines of education, from PAUD, kindergarten, elementary, junior high, high school, and public and private universities. After almost two years of implementing the online learning system, we can evaluate the various academic problems. One of the most prominent problems is the ineffectiveness of the online learning system, where students tend to do academic procrastinate. Academic procrastination is a common problem in education and severe for all students (O'Sullivan, 2020). This loose teaching and learning process makes students less controlled and often ignores online learning.

Due to the slightly lax school regulations in online learning, it is possible to trigger the problem of academic procrastination. Ghufron and Risnawita (2017) state that procrastination is a deliberate and repetitive procrastination behavior. Furthermore, Steel (2007) states that procrastination is a delaying activity by wasting time. Procrastinators will delay tasks intentionally even though they already know the negative impact of what they are doing (Steel, 2007). In education, academic procrastination can be seen in delays in academic tasks, such as delaying preparation for exams or completing daily tasks (Solomon & Rothblum, 1984). These tasks include administrative duties, school assignments done at home (homework), work to prepare for exams, studying for exams, and work to attend lessons (Triyono & Khairi, 2019).

Ghufron and Risnawita (2017) mention aspects of academic procrastination: Delay in starting and completing assignments, being late for work, gaps between planned time and actual performance, and doing other more enjoyable activities. Burka and Yuen mention the following characteristics of a procrastinator: 1). The intention-action gap means a gap between goals and action, which means failure to act on intentions, even though it has been carefully planned. 2). Low conscientiousness means low awareness to do tasks, difficulty planning, and decreased motivation to achieve goals, 3) poor self-discipline, namely poor self-discipline, refers to self-control in planning and organizing (Burka & Yuen, 2008).

Procrastination behavior in Islam is seen as bad behavior. Allah, in the Quran, urges his servants not to waste time. The Arabic proverb states that "time is like a sword, it will cut you if you don't cut it" (Zainudin, 2015). In carrying out the obligation to pray, for example, Muslims must hurry to perform the prayer when the call to prayer has been sounded. Allah SWT calls those who neglect time losers. Allah SWT states this in the Qur'an Surah Al-Asr. Through this verse, Allah SWT warns humans with His oath so that humans do not waste and ignore time (Hamka, 2016). Allah commands his servants to be active in filling the time while living in the world, especially in worship.

Academic procrastination is also experienced by Muslim adolescents studying at one of the public high schools in Palembang, South Sumatra, especially during the online learning period. Since the issuance of the circular letter, the Ministry of Education and Culture Number 4 of 2020 concerning implementing education policies. In the emergency period of the spread of Coronavirus disease (Covid19), all teaching and learning activities from all lines have been shifted to online learning, which means that teaching and learning activities are carried out at home.

Palembang is a city included in the red zone, so learning must carry out education from home online. The home study policy significantly changes student learning patterns (Sudarsana & Lestari, 2020). Therefore, there

are many obstacles and temptations that students face when faced with changes in the learning system. Laziness in learning is a scourge that is difficult to avoid for most students due to the lack of direct control from the teacher. Procrastination is like making close friends with students. The effectiveness and efficiency of online learning programs are not right on target when many students postpone academics. In line (Republik Indonesia, 2015) with Hong et al. (2021), their research stated that the perceived ineffectiveness during online learning was indicated by procrastination, which was negatively related to independent education in the online world. Then Afrashteh and Seghalani (2021) stated that although virtual learning cannot be avoided if implemented for an extended time, it will reduce learning motivation and increase academic procrastination.

Learning, as well as the influence of a less conducive learning environment. Based on the results of field studies carried out by researchers on several Muslim adolescents attending high school, it is true that when online learning is applied, students show several academic procrastination behaviors. Some of the reasons that cause a student to delay doing assignments such as not understanding the subject, many temptations to be lazy, the absence of rules that bind students when studying at home, students who are less able to regulate themselves, lack of support from the environment and parents in carrying out their duties. Existing conditions make the possibility of students procrastinating even more significant, especially when students lack supervision from parents and teachers. Anyone can do procrastination, but this becomes a severe problem if procrastination is used as a learning strategy by most students. When procrastination is used as a learning strategy, there will be many negative impacts such as less than optimal learning, many tasks that are not done optimally, and students will experience a decrease in academic achievement (O'Sullivan, 2020).

Procrastination is a behavior that arises not only from a single factor but from many factors that cause a person to procrastinate.

These factors can come from internal or external factors (Ghufron & Risnawita, 2017). Internal factors come from within a person, both from physical and psychological conditions such as self-regulation and self-efficacy. At the same time, external factors cause procrastination behavior from outside the individual, such as the environment and parenting patterns (Ghufron & Risnawita, 2017). There have been many previous studies that mention predictors of procrastination behavior, including low motivation, poor self-concept, lack of self-control, low self-efficacy, being too perfectionist, low self-esteem, irrational targets, poor adjustment levels, low self-regulation, and differences in parenting patterns (Ackerman & Gross, 2005; Ferrari et al., 1995; Ghufron & Risnawita, 2017; Steel, 2007; Tuckman, 1991).

Self-efficacy and self-regulation are internal factors within a person that affects procrastination (Ghufron & Risnawita, 2017). The two predictors are psychological attributes closely related to the individual learning process (Santrock, 2017). In addition, self-efficacy and regulation contribute significantly to procrastination behavior, which is 41.6% (Triyono & Rifai, 2019).

Muslim adolescents will complete a task well when they have great confidence that they can achieve it. A person who fails to meet a job correctly and on time does not mean that he is genuinely unable to do it; he may be not confident in his abilities, thus limiting himself to do the tasks given. This belief in one's abilities is known as "self-efficacy" in psychological terms. Bandura stated that cognitive factors play an essential role in learning. Self-efficacy is one of the most emphasized factors in recent years, where self-efficacy is the belief that one can master the situation and produce positive things (Santrock, 2017).

Bandura (1997) defines self-efficacy as the output of cognitive processes in decisions, beliefs, or individual expectations estimating their ability to do specific tasks or actions to achieve the desired goals. In short, self-efficacy is the idea that one can complete a task (Bandura, 1997). Self-efficacy dramatically influences the formation of one's behavior.

Students who do not have self-efficacy may not study when they face the exam because they are pessimistic and believe they will not be able to do well on the exam. Then the individual chooses not to study or not to do the task. Students with low self-efficacy believe that they cannot do assignments, so they avoid these tasks rather than trying to do them (Triyono & Rifai, 2019).

Ziegler and Opdenakker (2018), in their research conducted on 566 students, stated that several predictors of academic procrastination behavior, including self-efficacy, metacognitive self-regulation, and effort regulation, were negatively related to procrastination. Research conducted by Triyono (2014) on high school students in Sukoharjo states that there is a significant relationship between self-efficacy, and emotional regulation, with academic procrastination. Ferrari et al. (1995) found a negative relationship between self-efficacy and academic procrastination. The research of Gün et al. (2020) showed that the relationship between the tendency of academic procrastination of prospective teachers with self-efficacy was significant, negative, and moderate. Thus, it can be seen that self-efficacy is a strong predictor of academic procrastination behavior.

The researcher then used self-regulation as a predictor of academic procrastination behavior. Zimmerman (2015) mentions self-regulation as an individual's effort to self-regulate inactivity by including metacognitive abilities, motivation, and affective behavior. Self-regulation in learning consists of self-generation, monitoring, and efforts to regulate feelings and behaviors to achieve academic goals such as improving reading comprehension, writing to be organized, learning to count, asking questions, controlling anger, and getting along well with classmates (Santrock, 2017). Ferrari et al. (1995) found that procrastinators have difficulty managing themselves to work with time, which causes dilatory behavior. Steel (2007), in his research, also revealed that self-regulation is a strong predictor of procrastination behavior. Other studies have also revealed that self-regulation negatively correlates with academic

procrastination and is the second-highest predictor of procrastination (Kandemir, 2014).

Self-regulation is closely related to the learning process, especially when undergoing online learning. High school students in developmental psychology are in the middle adolescence phase. In this case, as a teenager, ideally, a student can direct himself and organize himself to follow the lesson well. In online learning, teacher control is minimal to regulate students, so students are led to be able to regulate themselves. Some students find it challenging to schedule learning activities from home. Good self-regulation when undergoing online learning can be characterized by the ability to manage time and make a priority scale for each activity, complete a student's responsibilities well, have learning records such as notes or summaries, and carry out self-evaluations. Low self-regulation leads students to academic procrastination behavior. Suroso et al. (2020), in their research, stated that self-regulation during the Covid-19 Pandemic had a negative and significant correlation with academic procrastination.

This study has differences from previous research. In this study, the researcher's main focus was to measure the relationship between self-efficacy and self-regulation with academic procrastination in Muslim adolescents during online learning. Based on the description above, with these problems, the author suspects a gap between Muslim adolescents as educated individuals and the reality. However, online learning is considered to have many obstacles ideally, as Muslim adolescents should have a sense of responsibility for their duties as a student. The existence can see this sense of responsibility of self-regulation and good self-efficacy in students. Among the predictors that determine why someone procrastinates can be seen from self-efficacy and self-regulation. The author assumes that this theme is an urgency that deserves further research so that it can be used as data to make changes to learning strategies in the future.

The change in the learning system due to the Covid-19 Pandemic has become a challenge that must be solved wisely. This study was conducted to answer questions about

the learning behavior of Muslim adolescents as students during the Pandemic, especially those related to the habit of procrastinating academic assignments. This research will then answer the question: What is the relationship between self-efficacy and self-regulation with academic procrastination behavior on online learning in Muslim adolescents during the Pandemic? That is the question that the author will try to answer in this study. Then the researcher proposed a hypothesis that there is a negative relationship between self-efficacy and self-regulation and academic procrastination in Muslim adolescents during online learning.

RESEARCH METHODS
Types of Research

This study applied quantitative methods as research methods by analyzing quantitative data (numbers) collected through measurement procedures and processed by statistical analysis methods (Azwar, 2017). Quantitative research is carried out systematically on parts, phenomena, and relationships between variables. This research was inferential to test the hypothesis—the type of approach used by correlational. Correlational research studies the extent to which variations in one variable are related to variations in one or more other variables based on the correlation efficiency (Azwar, 2017).

Identification of Research Variables

Variable identification is the determination of what variables are involved in each hypothesis testing and how the function of each of these variables is (Azwar, 2017). The types of variables were distinguished into dependent variables and independent variables. The variables in this study are as follows:

a. Independent variables (X): Self-efficacy (X1) and self-regulation (X2)
b. Dependent variable (Y): Academic procrastination

Operational Definition of Research Variables

a. Academic procrastination is the behavior of students who delay doing and completing academic tasks in online learning during the Covid-19 period, intentionally, consciously, and repeatedly. Academic procrastination in this study was measured using a Likert scale which was arranged based on aspects of academic procrastination according to Ghufron and Risnawita (2017) ; delaying starting and completing tasks, delays in completing tasks, discrepancies between the planned time and the actual performance of the task, as well as doing other activities that are more fun than doing the task. The measuring instrument for this study was prepared by the researcher himself, which was adapted to the online learning situation. The level of academic procrastination could be seen from the score obtained by the subject. The higher the score obtained, the higher the level of academic procrastination.

b. Self-efficacy in this study can be defined as a student's inner belief that he or she has the ability and potential to complete a task in any situation and condition to provide positive results, especially in online learning during the COVID-19 Pandemic. Self-efficacy in this study was measured by a Likert Scale based on the aspects of self-efficacy proposed by Bandura (1997), including level (level of task difficulty), Generality, and Strength. Based on these aspects, the authors developed measuring tools adapted to online learning situations. The level of student self-efficacy has been seen from the magnitude of the score obtained. The higher the score, the higher the level of student self-efficacy.

c. Self-regulation in this study can be understood as a series of efforts made by a student to organize himself and achieve a

target by involving the main elements, namely metacognition, motivation, and affective behavior, when doing online learning. Self-regulation is measured by a Likert scale which is based on aspects of self-regulation according to Zimmerman: metacognition, motivation, and behavior which are then described in indicators by Zimmerman and Martinez Pons (Mulyadi, 2017), namely: self-evaluation, regulating, and changing, setting goals and plans, seeking information, keeping records and monitoring, managing the environment, self-consequences, repeating and remembering, seeking social support, checking records. The author himself prepared the measuring instrument in this study. The level of student self-regulation has been seen from the score obtained. The greater the score, the higher the self-regulation students have.

Population and Research Sample

The population is a generalization area group consisting of objects/subjects with specific qualities and characteristics determined by researchers to be studied and then concluded (Sugiyono, 2018). The population in this study was 1173 students studying at one of the public high schools in Palembang city in May 2021, with details of class X with as many as 406 students, class XI with as many as 305 students, and class XII with as many as 350 students.

The sample is a small part of the population which, of course, has the same character as the population (Azwar, 2017). This study used purposive sampling, where each member of the population took in a certain amount that can reflect the characteristics of the population (Azwar, 2017). The sample of this research was Muslim adolescents in classes X, XI, and XII SMA, which are 298 students. This amount was obtained based on calculations using the slovin

formula (Sugiyono, 2018). The criteria for the research sample were: Muslim, high school students, and carrying out online learning.

Data Collection Technique

Data collection in research activities aims to reveal empirical facts about the variables to be studied (Azwar, 2017). The authors used a psychological scale to collect research data in this study. The psychological scale has been designed to express attitudes of pros and cons, positive and negative, or agree and disagree with a statement.

The type of scale used in this study was the Likert scale. Azwar (2017) states that the Likert scale is composed of favorable and unfavorable statements that can reveal individual attitudes. A clear statement is a statement that supports the attribute to be measured, while an unfavorable statement is a statement that does not support the attribute to be studied.

The Likert scale consists of four, five, or six categories of conformity. In this study, the authors used four response options, namely Very Appropriate (SS), Appropriate (S), Not Appropriate (TS), and Very Unsuitable (STS). In scoring, the favorable item choices would be given 4 points if they choose the Very Appropriate (SS) option and 1 point if they choose the Very Inappropriate (STS) option. In the unfavorable statement, the Very Appropriate (SS) statement would be given 1 point, while the Very Unfavorable (STS) statement would be given 4 points.

Data Analysis

Researchers tested the validity and reliability before analyzing the data. Validity is a measure that shows the validity of a measuring instrumentt (Machali, 2017). The instrument is said to be valid if it can measure what is desired or can reveal data from the variables studied appropriately (Arikunto, 2010). Then the reliability test is

carried out to determine the extent to which the measurement results are consistent and accurate, namely by using objects with the same characteristics that will produce the same data (Sugiyono, 2018). In this measurement, the reliability test was carried out by doing a try-out first, then using the Alpha Cronbach formula to measure the lower limit of the reliability value. The value of the Cronbach alpha coefficient ranges from 0 to 1. The measuring instrument is reliable if it has a Cronbach alpha score of at least 0.6. The closer the Cronbach's alpha value is to 1, the more reliable the construct is. Reliability is considered good if the Alpha value meets 0.700 (Sugiyono, 2018).

A computer data processing program assisted the data analysis process in this study with the SPSS version 26 program. In this study, regression analysis was used to see the correlation between one or more predictor variables (X) and criterion variables (Machali, 2017).

Before performing multiple regression analysis, the prerequisite test includes the assumption test, which consists of a normality test and linearity test. The results of data management report that the data is typically distributed and linear. In other words, this research can be analyzed using the regression analysis method to determine the relationship between self-efficacy and self-regulation with academic procrastination in online learning.

Table 1
Normality Test
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		298
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	15.07119772
Most Extreme Differences	Absolute	.050
	Positive	.050
	Negative	-.043
Test Statistic		.050
Asymp. Sig. (2-tailed)		.075[c]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

Table 2
Linearity Test

Variable	Sig. Linearity	Result
Academic Procrastination Self-Efficacy	0.000	Linear
Academic Procrastination Self-Regulation	0.000	Linear

RESULTS AND DISCUSSION

Hypothesis testing in this study uses multiple regression analysis techniques to define the mathematical relationship between the dependent variable (Y) and one or several independent variables (X).

Multiple regression analysis was conducted to analyze the relationship between one dependent variable (Y) and two or more independent variables (X) simultaneously (Machali, 2017). This study used multiple linear regression analysis to determine the relationship between self-efficacy and self-regulation with academic procrastination variables in Muslim adolescents during online learning. The following table shows the correlation coefficient of the multiple regression analysis obtained:

Table 3
Multiple regression correlation coefficients

Coefficients			
Model		Unstandardized coefficient	
		B	Std. Error
1	(Constant)	237.034	10.345
	Self- Efficacy	-0.427	0.064
	Self- regulation	-0.241	0.072
a.	Dependent Variable: Academic Procrastination		

Based on the multiple regression coefficient table, the equation is obtained as follows:

$Y = + 1X1 + 2X2 + e$

$Y = 237.034 + (- 0.427\ X1) + (- 0.241\ X2)$

following the interpretation of the equation:

- The constant value of 237.034 indicates the average level of student academic procrastination. iT means that if self-efficacy and self-regulation are 0, academic procrastination is 237.034.
- The self-efficacy variable regression coefficient shows a negative number of -0.427, indicating that when the self-efficacy variable increases by one, it will be accompanied by a decrease in academic procrastination by 0.427. The higher value of self-efficacy is accompanied by a decrease in the value of the academic procrastination variable.
- The regression coefficient on the self-regulation variable shows a negative number with a value of -0.241, which indicates that when the self-regulation variable increases by one, it will be accompanied by a decrease in the level of academic procrastination by 0.241. The higher the self-regulation, the lower the value of academic procrastination.
- The results of the hypothesis-model summary test are presented in the following table:

Table 4
Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.520ᵃ	.270	.265	15.122
a. Predictors: (Constant), Sefl- efficacy, and self-regulation				
b. Dependent Variable: Academic Procrastination				

R is the value of the correlation coefficient, and the result is 0.520. The value of R Square explains the ability of the self-efficacy variable (X1) and self-regulation variable (X2) simultaneously to predict the value of the academic procrastination variable,

namely Y = R2 x 100% = (0.520)2 x 100% = 27%. In comparison, the remaining 73% value variable Y is explained by other variables outside this research.

The results of the correlation analysis between self-efficacy variables and academic procrastination showed a rx1y value of -0.492, with a significance (p<0.05) the relationship was negative and significant. It means that the higher the student's self-efficacy, the lower the level of academic procrastination, or vice versa. The lower the student's self-efficacy, the higher his academic procrastination. So, the minor hypothesis in this study is accepted.

Furthermore, the results of the correlation analysis between self-regulation variables and academic procrastination showed a rx2y value of -0.400, with p<0.05. The relationship is negative and significant because the higher the student's self-regulation, the lower his academic procrastination. On the contrary, the lower the student's self-regulation, the higher his academic procrastination. The results of the correlation analysis can be seen in the following table:

Table 5
Pearson product-moment correlation coefficient

Variable	Pearson correlation	Sig.
Self-Efficacy	-0,492	0,000
Self-Regulation	-0,400	0,000

Based on these results, the research hypothesis which reads "There is a relationship between self-efficacy and self-regulation with academic procrastination in Muslim adolescents during online learning," is accepted.

This study's results align with the opinion of Steel (2007), who states that self-efficacy and self-regulation are predictors of academic procrastination. During face-to-face and online learning, self-efficacy and self-

regulation are psychological traits that students must possess.

The students' self-efficacy scores were in the moderate category, representing 67.4% of the research sample. It shows that each subject has aspects that are part of self-efficacy, namely aspects of level, generality, and strength. Subjects can believe in their abilities based on the level of the task at hand and have confidence that the subject can understand the concept or field of study of academic assignments comprehensively. broad, and have confidence and strength in dealing with obstacles in doing academic tasks.

As Santrock (2017) mentioned, self-efficacy is the confidence that individuals have about their ability to perform and complete tasks and master situations to give positive results. Self-efficacy is among the highest predictors affecting procrastination (Kandemir, 2014). So that it shows that self-efficacy cannot be separated from the learning process, including when students are carrying out online learning. Students who have strong self-efficacy will face academic tasks well and will not delay their academic assignments.

Through the results of this study, we can see that self-efficacy deserves to be used as a predictor of academic procrastination in online learning. It can be said that self-efficacy has a negative and significant relationship with academic procrastination ($rx1 = 0.492$, $p<0.05$).

It means that when a student has low self-efficacy, the student is likely to have a high level of procrastination, and vice versa. When the level of self-efficacy of students is high, the academic procrastination experienced is low. This study's results align with Lubis's (2018) research, which states a negative relationship between self-efficacy and student academic procrastination. In line with the results of research by Gun et al. (2020), academic self-efficacy is a significant predictor of academic procrastination. This

conclusion is also in line with the results of research conducted by flaurina (2021) under the title The Relationship between Self-Efficacy and Academic Procrastination in Class XI Students at SMA X. the correlation coefficient obtained is -0.244.

So it can be concluded that self-efficacy has a significant relationship in a negative direction with the academic procrastination of class XI students at SMA X. and research from Ling Li, et al., (2020) entitled The mediating and buffering effect of academic self-efficacy on the relationship between smartphone addiction and academic procrastination which states that self-efficacy has a negative relationship with academic procrastination.

Based on the calculation results of the categorization of the self-efficacy variable scores, it was found that in 298 research samples, 14.8% or 44 students had a low level of self-efficacy, which means that students are less able to believe in their potential and abilities to achieve goals. Then as many as 67.4% or 201 students have a sufficient level of self-efficacy, and 53 students have a high level of self-efficacy which means that students can fully believe in their abilities and potential both in the level of the task at hand, ability in a broad field, as well as persistence and strength to face learning barriers. With the results of this categorization, it can be concluded that Muslim adolescents as students in one of the senior high schools in the city of Palembang have a moderate level of self-efficacy based on the results of statistical calculations.

In online learning, students also involve self-regulation skills. Self-regulation includes self-generation, monitoring, and efforts to regulate feelings and behaviors to achieve academic goals such as improving reading comprehension, organized writing, learning to count, asking questions, controlling anger, and getting along well with classmates

(Santrock, 2017). The average self-regulation value of this research sample is in the moderate category with a presentation of 67.1%, which indicates that students can carry out every aspect of self-regulation such as metacognitively, motivationally, and behaviorally. The level of self-regulation in this study is determined by the extent to which students can carry out self-regulation as measured by their metacognitive abilities, namely understanding cognitive abilities, which means the ability to plan, monitor (monitor), and improve their performance or behavior. Moreover, students show behavior as an effort to self-regulate, select, utilize and create an environment that supports their activities (Ghufron & Risnawita, 2017).

Self-regulation is a person's capacity to carry out operations to meet needs. As described by Zimmerman (2015), self-regulation is an individual's ability to involve elements of metacognitive, motivational, and behavioral processes that are personally initiated to acquire knowledge and skills such as goal setting, planning, learning strategies, self-reinforcement, self-recording, and instruction. For academic procrastinating, self-regulation is also referred to as one of the strongest predictors affecting the procrastination level (Steel, 2007).

Self-regulation is closely related to the learning process, especially when undergoing online learning. High school students in developmental psychology are in the middle adolescence phase (Yafi'). In this case, as a teenager, ideally, a student can direct himself and organize himself to follow the lesson well. In online learning, teacher control is minimal to regulate students, so students are led to be able to regulate themselves. Some students find it challenging to schedule learning activities from home. Good self-regulation when undergoing online learning can be characterized by the ability to manage time and make a priority scale for each activity,

complete a student's responsibilities well, have learning records such as notes or summaries, and carry out self-evaluations. Low self-regulation leads students to academic procrastination behavior.

The hypothesis that states "there is a negative and significant relationship between self-regulation and academic procrastination in online learning" is accepted with these results. This study's results indicate a negative and significant relationship between self-regulation and academic procrastination in online learning with (rx2=-0.400, p<0.05). The negative direction indicates that when a student has a high level of self-regulation, his academic procrastination tends to be low. In contrast, when a student's self-regulation is low, his academic procrastination tends to be high. Ferari (2001) found that procrastinators have difficulty managing themselves to work with time, leading to dilatory behavior. So, to minimize academic procrastination behavior, good self-regulation skills are needed. Through the results of this study, it can be seen that self-regulation has a relationship with academic procrastination. The increase or decrease in the self-regulation variable will accompany an increase or decrease in the academic procrastination variable.

This study's results align with Suroso et al. (2020) in their research, stating that self-regulation during the Covid-19 Pandemic has a negative and significant correlation with academic procrastination. It is in line with the research of Amani and Arbabi (2020), which states that academic self-regulation also has a relationship with academic procrastination (r = -0.24, P <0.0001). This conclusion is also in line with the results of research conducted by Desi et al. (2021) under the title The Relationship of Self-Regulation with Academic Procrastination of Masters Students. They work at Higher Education in Surabaya. The study's conclusion stated that there was a negative correlation between self-regulation

and academic procrastination and showed a significant relationship of 0.000 (p <0.05). Research by O'Sullivan (2020) also states that self-regulation negatively correlates with academic procrastination.

Academic procrastination occurs in Muslim adolescents as the sample of this study is in the moderate category with a percentage of 67.8%. Thus, every student tends to take actions that lead to procrastination behavior, such as being late in doing and completing assignments and being late in collecting assignments. The academic procrastination experienced by the research sample was classified as moderate, perhaps due to the moderate level of self-efficacy and self-regulation. It indicates that Muslim adolescents do not ignore the importance of self-efficacy and self-regulation when carrying out online learning, although they sometimes procrastinate. The results of this study indicate a very significant relationship between self-efficacy and self-regulation with academic procrastination in Muslim adolescents during the online learning period. So that self-efficacy and self-regulation can be used as predictors of academic procrastination with ($R^2 = 0.270$ and has an effective contribution of 27%). In other words, high or low scores of students' self-efficacy and self-regulation will be opposite to high or low students' academic procrastination. When students' self-efficacy and self-regulation show high scores, their academic procrastination is low, and vice versa.

The results of this study also strengthen the research conducted by Ziegler et al. (2018) The development of academic procrastination in first-year secondary education students: The link with metacognitive self-regulation, self-efficacy, and effort regulation which states that all the predictors mentioned have a negative correlation with procrastination and will decrease over time. Attia and Abdelwahid's (2020) research entitled Grit, Self-Regulation, and Self-Efficacy as Predictors of Academic Procrastination among Nursing Students also

conclude that self-efficacy and self-regulation have a significant relationship with academic procrastination.

Self-efficacy and self-regulation are needed to prevent the emergence of academic procrastination. Self-efficacy is a sense of trust and confidence in one's abilities so that a student will be serious about achieving his knowledge. In Islam, we can find self-efficacy in QS. Al-Anfal verse 12 "Remember when your Lord revealed to the angels "Verily I am with you, so strengthen (the position of) those who have believed." Later I will put fear in the hearts of the disbelievers, then strike them on the neck and strike at the tips of their fingers."

With obligations as a student, students have the responsibility to regulate themselves and play a significant role in independent learning. An individual will not achieve learning success if he does not lead himself and does not organize himself to learn. Then self-regulation becomes the most important thing a student has. It is in line with the Surah Ar-ra'd verse 11 "Allah will not change the condition of a people until they change it themselves."

This research can be used as a benchmark for the world of education to develop teaching and learning strategies to minimize the level of academic procrastination. Judging from the value of academic procrastination by students, it tends to be at a moderate level. So schools need to develop the effectiveness of teaching and learning activities. In addition, schools may be able to carry out activities that can increase students' self-efficacy and self-regulation.

CONCLUSION

This research is entitled "Self-efficacy and self-regulation with academic procrastination in Muslim adolescents during online learning." This study examined the relationship between self-efficacy and self-regulation with academic procrastination that occurs in Muslim adolescents during online learning. The data in this study were taken through a scale distribution based on the aspects of each variable. This study has one main hypothesis: "There is a negative

relationship between self-efficacy and self-regulation with academic procrastination in Muslim adolescents during online learning." To test the hypothesis, the researcher used multiple regression analysis methods. The results showed that self-efficacy and self-regulation had a significant relationship with academic procrastination in online learning ($R2 = 0.270$, $P < 0.05$), so the hypothesis in this study was proven. It indicates a significant relationship between self-efficacy and self-regulation with academic procrastination in Muslim adolescents during online learning. Self-efficacy and self-regulation have an effective contribution of 27%. In other words, self-efficacy and self-regulation variables can be accepted as predictors of academic procrastination. Meanwhile, both self-efficacy and self-regulation have a negative relationship with academic procrastination in online learning ($rx1 = -0.421$; $rx2 = -0.400$; $p<0.05$). It indicates that if the value of self-efficacy and self-regulation of students is high, the value of academic procrastination in online learning is low. On the other hand, if self-efficacy and self-regulation are low, then academic procrastination is high.

This study has many shortcomings and limitations, so it becomes an evaluation material for the researchers and further research. Some of the limitations that the researchers found include 1). Subject taking with quota sampling makes this research challenging to generalize to the population, 2). Spreading the scale using google forms is a bit ineffective because researchers cannot directly control filling out the scale and providing instructions for working, 3). The instrument validity method that is still simple, namely by looking at the differentiating power of items, cannot ensure the validity of the research instrument.

Based on these shortcomings, hopefully, it can be used as an improvement by other researchers who will conduct research with the same theme. For further researchers, if they want to do the same research with the same variables, they should pay attention to the number of scale items used. Too many items allow the subject to answer carelessly. The author recommends that future researchers conduct research directly, not using Google Forms. To be able to observe and control the subject directly.

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