



The Use of Self Regulated Learning in Increasing Student Learning Effectiveness

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Received: March 09, 2024	Revised: June 23, 2024	Accepted: June 23, 2024	Online: June 23, 2024
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ABSTRACT

As time goes by, education will continue to experience difficulties, therefore students cannot only wait for the lessons given by the teacher, self-regulated learning is needed to increase student effectiveness. So that students quickly understand the lesson and the teacher does not have difficulty explaining the material that will be presented. Purpose of the research This is to increase student learning effectiveness by using self-regulated learning. Method used by researchers in conducting this research are Quantitative, data obtained through distributing online questionnaires using Google Forms. Results of this research shows that there is an increase in student learning effectiveness through the use of self-regulated learning. Conclusion of this research is to increase discipline and independence of students who cannot be controlled. Therefore, self-regulated learning is needed to facilitate understanding of learning material. Limitations in research This researcher only conducted research online so the data obtained was less relevant. This research also recommends to future researchers so that it becomes a challenge to use self-regulated learning in increasing student learning effectiveness.

Keywords: *Increasing Effectiveness, Regulated Learning, Student Learning*

Journal Homepage <https://ejournal.staialhikmahpariangan.ac.id/Journal/index.php/alhijr/>

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How to cite:

Rita, C., Geraldo, T., Marilia, B., Federica, K & Linty, M. (2024). The Use of Self Regulated Learning in Increasing Student Learning Effectiveness. *Al-Hijr: Journal of Adulearn World*, 3(2), 249-262. <https://doi.org/10.55849/alhijr.v3i2.617>

Published by:

Sekolah Tinggi Agama Islam Al-Hikmah Pariangan Batusangkar

INTRODUCTION

Self-regulated learning helps students make it easier for them to understand lessons. Currently, many researchers are conducting research on self-regulated learning and it has become an important part (Lung-Guang, 2019; Winne, 2018). Learning self-motivation and self-regulation skills greatly determines students' level of self-regulated learning, which will also influence student learning outcomes in line with learning objectives (Ben-Eliyahu, 2019; Wong et al., 2019). Students' ability to organize self-regulated learning is an important factor in achieving learning goals (Z. Sun et al., 2018). This goal will be achieved if students are serious about organizing themselves in learning (Albelbisi &

Yusop, 2019; Xiao & Yang, 2019). So it can be ensured that students who use self-regulated learning can improve achievement, effectiveness and learning outcomes. Students who use self-regulated learning will be able to develop themselves both in terms of national and international achievements.

According to Slavin, self-regulated learning is "students who have knowledge about effective learning strategies and know how and when to use self-regulated learning."(Bai & Guo, 2018; Wang & Chen, 2020). Therefore, students who use self-regulated learning will be left behind by students who already use the concept of self-regulation. So the role of a teacher is needed to help students(Hooshyar et al., 2020; van Alten et al., 2020). It is important for teachers to know about self-regulated learning because it seeks to facilitate and understand what needs are needed by students so that they can move from just teaching to practicing self-reflection.(Işık et al., 2018; Theobald, 2021). Makes it easier for teachers to provide material and speeds up the learning process(Q. Li et al., 2020; Wallin & Adawi, 2018). So that students gain a lot of knowledge and can apply it in everyday life.

Self regulated learning was first proposed by Bandura. According to Bandura, a person has the ability to control the way they learn by developing steps of introspection, self-evaluation, and self-reaction(De Smul et al., 2018; Jivet et al., 2020). Therefore, students as students of knowledge who will advance education in Indonesia really need self-regulated learning(Won et al., 2018; Zheng et al., 2020). Because students who have a self-regulating character are able to realize their desires without the help of others and are able to carry out their assignments independently(Montgomery et al., 2019; Yang et al., 2018). Self-regulated learning for students who use it will influence success according to their learning goals. Self-regulated learning can be used in the field of education(Kim et al., 2018; Teng & Zhang, 2020). Because education is always connected with teaching and learning, namely the interaction of students with teachers, however, when students are able to understand self-regulated learning it will help them understand the knowledge conveyed by their teachers.

Students can develop self-regulated learning through education, namely the use of media and an effective learning environment with guidance and counseling services(Garcia et al., 2018; K. Li, 2019). This learning will have a big impact on students who are able to process and organize it. The process of self-management is related to self-confidence, namely believing that one's potential can be utilized as well as possible(T. Sun & Wang, 2020; Yan, 2020). Self-learning is a process where students discover themselves, such as understanding the lessons given and their attitudes in learning these things(Chen & Hsu, 2020; Moreno-Marcos et al., 2020). Whether they study seriously or not seriously. Because this will affect their learning outcomes and ease the teacher's burden. Students who apply this can achieve success in learning, and can regulate and control students' emotions during the teaching and learning process.

Based on the results of relevant research related to this study conducted by Afrizal Sano et al. In his article entitled self-regulated learning, students are seen from learning outcomes. He said that students who are able to organize self-regulated learning will

achieve the goals of education. Determined by the existence of self-regulated learning, students can regulate themselves in terms of learning. So students with self-regulated learning abilities will influence learning outcomes. Self-regulated learning can also be used as motivation to increase student learning effectiveness. And it can also be used as a reference to improve student learning achievement. It plays a very important role in the learning process, which will make learning more effective and efficient. Through knowledge of self-regulated learning, students can solve learning problems. Students' learning success depends on students' readiness for exams which they will pass with different difficulties for each lesson given by the teacher.

Based on the results of previous research, it can be stated that there is a change and the existence of novelty. There is research now. In the current study, the researcher reveals the learning model that is applied in the teaching and learning process. What can be done with self-regulated learning (Bransen et al., 2020; Gandomkar & Sandars, 2018). This learning model can also be used as a trigger factor to provoke students to be enthusiastic and enthusiastic in improving their learning achievements (Roick & Ringeisen, 2018). In this research, the researcher also presents the research results in graphic form as well as an analytical explanation containing presentation levels about how to apply the self-regulated learning model to increase student effectiveness and learning achievement. Which will make students more independent and motivated to study harder.

The aim of this research is to increase the effectiveness of student learning by using self-regulated learning, as well as being able to find out the advantages, disadvantages and benefits of learning which will facilitate the learning process for both students and teachers. The situation in the classroom will be more effective if students are able to organize learning so that when the teacher asks questions, students can answer the questions so that the teaching and learning process will feel more enjoyable. So teachers can differentiate between students who study at home and students who don't, so that the time students use is more useful when they study alone at home. Rather than students who only spend their time just playing games. With this problem, researchers will discuss the use of self-regulated learning in increasing student learning effectiveness. This increase will attract students to learn more independently

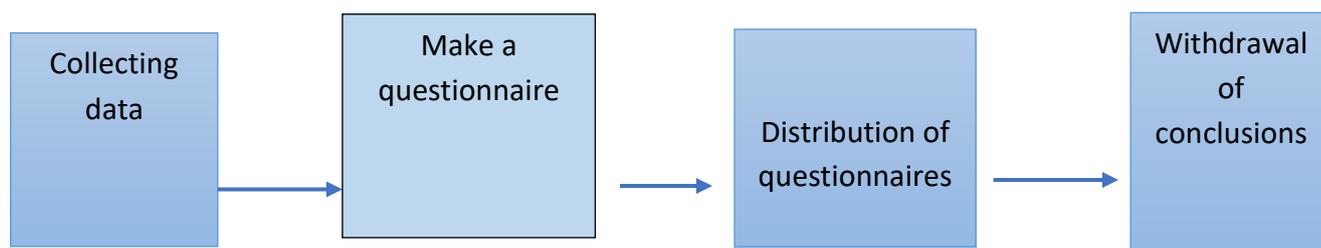
Based on the explanation above, researchers are interested in choosing a title for the use of self-regulated learning in increasing student learning effectiveness because they see the many problems of decreasing student learning achievement at this time. Where students are not interested in the learning model taught by the teacher because they lack awareness of self-regulation in learning in order to achieve learning goals and improve learning outcomes. For this reason, researchers want to apply self-regulated learning to the world of education. So that students are motivated and develop a sense of enthusiasm for learning to have high abilities in the academic field, because education is very important today and will have a big impact on students' future. Therefore, self-regulated learning is needed to increase student effectiveness.

RESEARCH METHODS

The method used by researchers in this research is a quantitative method. This quantitative method is a process for finding data which in research uses numerical data (Bauer et al., 2021; Hong et al., 2018). This method has advantages such as the accuracy of the facts obtained and the ability to generate data easily. In the context of Self Regulated Learning, the use of quantitative methods can measure the extent to which this learning model can increase student learning effectiveness (Bauer & Scheim, 2019). Researchers carry out research through several stages until they reach the final part of the research. The stages carried out by the researcher were starting from collecting data, creating a questionnaire using Google Form, where the questionnaire contained questions related to the research carried out by the researcher to obtain accurate and specific information, where the research was aimed at teachers and students.

Researchers conducted this research at a nearby school institution. Data collection was carried out by researchers through questionnaires. This research was carried out by distributing questionnaires to subjects who were undertaking education at the school institution (Hosseini et al., 2019; Nieuwenhuijsen et al., 2018). The object of this research is a self-regulated learning model to increase student learning effectiveness. The aim is to find out what percentage is related to the importance of self-regulated learning in education to help increase student learning effectiveness. The population in this study were teachers and students at school. The samples taken were 50 people, the samples were obtained from several teachers and students at the educational institution. This sample is useful to make it easier for researchers to obtain information, where later the data will be obtained using quantitative analysis by researchers for this research.

This survey method has analytical techniques, one of which is statistical techniques or data collection methods using diagrams. Data analysis techniques are a data management process that includes examining, processing and modeling data, which will later be useful as a basis for drawing conclusions. This technique was chosen because in managing this technique, data can become relevant information using numbers that are easy to understand when presented to people in order to find solutions to the problems to be studied. From the technique studied, arguments were obtained from respondents based on the results of a survey via Google Form which contained several questions related to the problem being studied. The results of the survey can be viewed from the background of the respondents, which consist of several students who received the self-regulated learning model.



RESULTS AND DISCUSSION

The role of teachers in student success is very important because it can increase achievement and learning effectiveness. However, students will always face obstacles and challenges both at school and outside school. This will happen in the education sector, starting from basic education to higher levels. This will affect student learning achievement and cause many students to stop midway. So it will have an impact on education in this country. To overcome this, student awareness and motivation provided by the teacher are needed. Because motivation will encourage interest in learning and provide facilities to make it easier for students to learn.

With so many learning methods nowadays, teachers are required to be able to choose a learning model that suits students' needs. By looking at the data, students and teachers can determine what methods need to be used. Appropriate learning methods will be able to help teachers to facilitate their approach to students and can also help students to improve their learning effectiveness and achievement. One method that can be used is self-regulated learning. Therefore, using this method can improve student learning achievement and can encourage or motivate students to carry out learning independently.

Table 1.1 results of questionnaire questions

NO	Question	S	SS	T.S	STS
1	Self-regulated learning can be used to evaluate the extent to which students have mastered the material being taught.	68	28	0	0
2	The self-regulated learning model helps provide learning patterns according to student needs	71	22	0	0
3	The self-regulated learning model helps provide learning patterns according to student needs	65	26	0	0
4	Self-regulated learning can help teachers identify learning difficulties in students and help in adjusting learning strategies	64	23	9	0
5	The existence of self-regulated learning can help teachers solve problems that exist in the learning process.	68	17	14	0
6	Self-regulated learning is very easy to apply to students because students are more familiar with technology	45	17	36	0
7	Self-regulated learning can help teachers provide feedback quickly and efficiently by creating models that can evaluate student work	69	18	12	0
8	Self-regulated learning is the most appropriate solution in the current era of technological development	51	21	28	0
9	Self regulated learning can be used to increase the	65	14	21	0

	accuracy of predictions on various problems in the world of education.				
10	With self-regulated learning, students can increase their creativity in learning	75	14	10	0
11	Self-regulated learning can help improve the quality of learning and provide a more personal and effective learning experience for students.	66	14	19	0
12	Self regulated learning is a learning model solution for teachers so that it is not boring	68	10	21	0
13	The self-regulated learning model can be applied at all levels of education.	56	7	36	0
14	The self-regulated learning model can help teachers explain learning.	75	8	15	0
15	The self-learning learning model can help teachers adapt learning styles to student needs	73	12	14	0
16	The self-regulated learning model can regulate students in learning	73	17	8	0
17	Self-regulated learning can increase student learning effectiveness	68	21	10	0
18	Self-regulated learning makes learning more efficient	58	15	26	0
19	Self-regulated learning will help students focus more on learning	66	23	10	0
20	Self-regulated learning will make students more independent.	47	51	0	0

In the table above there are several explanations related to self-regulated learning models in the world of education. The table above includes several questions which make it easier for researchers to research this study. There are 20 questions included about how important self-regulated learning is in the world of education, both for teachers and students, in increasing the effectiveness of student learning. Questions containing self-regulated learning can be used to evaluate the extent to which students have mastered the material taught with a percentage of 68% choosing agree and some people choosing strongly agree with a percentage level of 28%. The table above shows that the self-regulated learning model helps provide learning patterns according to needs with a percentage level of 71% with agree answers and 22% for strongly agree. Furthermore, researchers also surveyed the self-regulated learning model to help provide learning patterns according to student needs with a percentage of 65% agreeing and other supporting answers, namely strongly agreeing with a percentage of 26%.

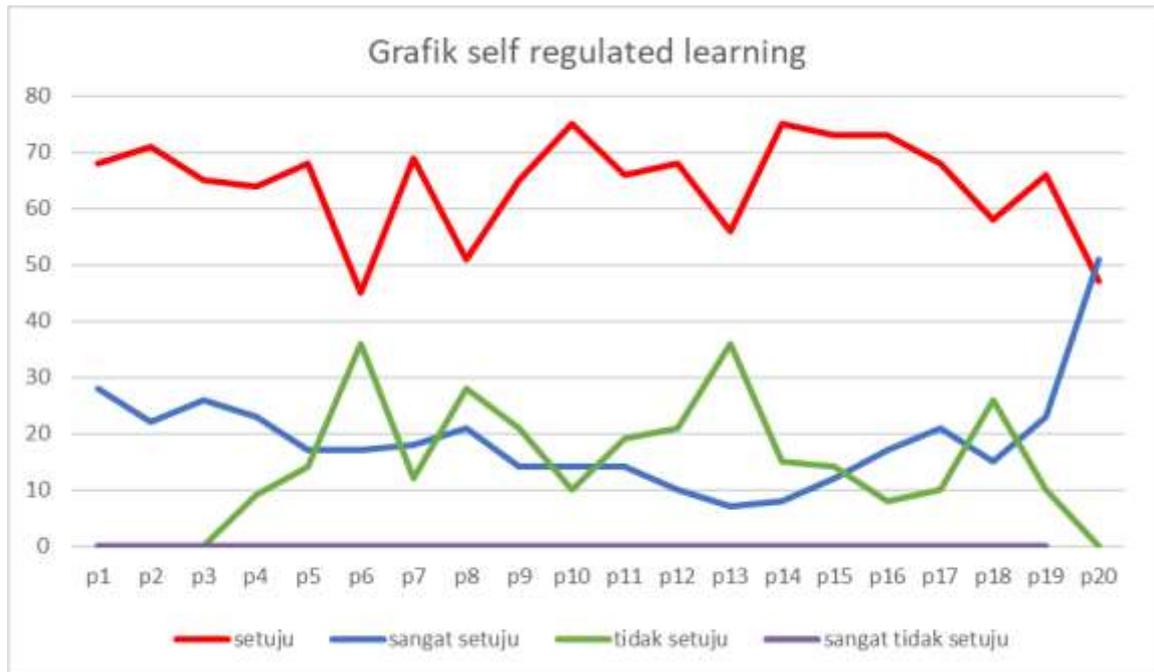
The table above shows that self-regulated learning can help teachers identify learning difficulties in students and help in adjusting learning strategies with a percentage answer of 64% agreeing and 23% strongly agreeing, but in this context some respondents disagree with a percentage of 9% . Not only that, researchers also researched that self-regulated learning can help teachers solve problems in the process with 68% of

respondents agreeing, 17% strongly agreeing and 14% disagreeing. Researchers also researched that self-regulated learning is very easy to apply to students because students are more familiar with technology, where respondents agreed with a percentage of 45%, 17% strongly agreed, and 36% disagreed. Questions containing self-regulated learning can help teachers provide feedback quickly and efficiently by creating a model that can evaluate assignments with a percentage of 69% with agree answers, 18% with strongly agree answers, and 12% for disagree answers.

Researchers also researched self-regulated learning, the most appropriate solution in the current era of technological development, where the survey results showed that respondents agreed with a percentage of 51% and 21% strongly agreed, and 28% disagreed with this. Not only that, researchers also researched that self-regulated learning can be used to increase the accuracy of predictions on various problems in the world of education with 65% of respondents agreeing, 14% strongly agreeing, and 21% disagreeing. The table above also states that with self-regulated learning students can increase their creativity in learning with 75% agreeing, 14% strongly agree, and 10% disagreeing. Furthermore, the table above also explains that self-regulated learning can help improve the quality of learning and provide a more personal and effective learning experience for students with a percentage of 66% agreeing and 14% strongly agreeing, and 19% disagreeing. Furthermore, the table above also states that self-regulated learning is a learning model solution for teachers so that it is not boring with a percentage of 68% agreeing, and 10 disagreeing, while other respondents disagree with a percentage of 21%. The next question regarding the self-regulated learning model can be applied at all levels of education with an agreement percentage of 56%, and the answer to strongly agree was 7%, while other respondents disagreed with the percentage result being 36%

The table above also explains that the self-regulated learning model can help teachers explain learning with 75% of respondents agreeing and 8% strongly agree, while other respondents disagree with a percentage of 15%. Based on the next question about self-learning learning models that can help teachers adapt learning styles to students' needs, respondents answered 73% to agree and 17% to strongly agree, for other respondents 8% disagreed.

The next question about self-regulated learning can increase student learning effectiveness with a percentage of 68% of answers agreeing, 21% strongly agreeing, and 10% disagreeing. Furthermore, questions related to learning. Self-regulated learning makes learning more efficient with the results of 58% agreeing, 15% strongly agreeing, and 26% of other respondents disagreeing. The next question about self-regulated learning will help students focus more on learning with 66% agreeing, other respondents 23% strongly agree and 10% disagree. For the last question related to self-regulated learning, it will make students more independent with 47% of respondents agreeing and 51% strongly agreeing.



The graphic image above explains the self-regulated learning model in the world of education. This research uses 20 questions to find out about the use of self-regulated learning in increasing student learning effectiveness. In this graph, there is the highest data acquisition, namely the respondents' answers agree with a percentage of 75% on the question that the self-regulated learning model can help teachers explain. The next highest percentage result is in the question with self-regulated learning, students can increase their creativity in learning with the agree category with a percentage figure of 75%. Furthermore, the highest percentage based on respondents' answers was found in the question that the self-regulated learning model can help teachers adapt learning styles to students' needs with a percentage figure of 73% in the agree category, as well as questions using the self-regulated learning model that can regulate students in learning, The same percentage figure as question 15 obtained 73% in the agree category. Furthermore, the highest percentage based on answers from respondents was found in the question of the self-regulated learning model helping to provide learning patterns according to student needs with a percentage of 71% of answers agreeing. The next highest percentage is that self-regulated learning can help teachers provide feedback quickly and efficiently by creating models that can evaluate student work with a percentage of 69% for agree answers.

In this research, several people got a percentage figure of 68% in the agree category, which lies in the question that self-regulated learning can be used to evaluate the extent to which students have mastered the material being taught. The next question with the same percentage figure is that self-regulated learning can help teachers solve problems in the learning process. Next is the question of self-regulated learning, learning model solutions for teachers so that it is not boring. Finally, on the question of self-regulated learning, it can increase the effectiveness of student learning with the same respondents. The next highest question is that self-regulated learning can help improve the quality of learning

and provide a more personal and effective learning experience for students with a percentage figure of 66%. The next question is the same as the previous percentage figure, namely, self-regulated learning will help students focus more on learning. The next highest percentage of agreement is that the self-regulated learning learning model helps provide learning patterns according to student needs with a percentage figure of 65%, other respondents with the same number on the self-regulated learning question can be used to increase the accuracy of predictions on various problems in the world of education. Furthermore, self-regulated learning questions can help teachers identify learning difficulties in students and help in adjusting learning strategies with a percentage figure of 64%. Another highest question with the self-regulated learning model can be applied at all levels of education. Researchers got results from respondents with a total percentage figure of 565

The next percentage in the strongly agree section, the highest in this category in questions with Self regulated learning will make students more independent with a percentage figure of 51%. Next, question number 1 is that self-regulated learning can be used to evaluate the extent to which students have mastered the material being taught with a percentage figure of 28%. The highest percentage of strongly agree was also obtained in question 3 with a percentage of 26% of the answers. The next highest percentage in the same category is found in self regulated learning questions which can help teachers identify learning difficulties in students and help in adjusting learning strategies with a percentage figure of 23%, the same number as questions with self regulated learning which will help students focus more in learning . The next highest questions were 2 questions with a figure of 21%, namely the question of self-regulated learning, the most appropriate solution in the current era of technological development. And self-regulated learning questions can increase student learning effectiveness by the same percentage figure. Furthermore, the highest percentage with self-regulated learning questions can help teachers provide feedback quickly by creating a model that can evaluate student work with a percentage figure of 18%. The next highest question is the question that the self-regulated learning model can regulate students in learning with a percentage of 17% who strongly agree. The next question is related to learning. Self regulated learning makes learning more efficient with a percentage figure of 15%. Next there are 3 questions with the same questionnaire results at number 9, namely elf regulated learning can be used to increase the accuracy of predictions on various problems in the world of education, then at number 10 namely with self regulated learning students can increase their creativity in learning and number 11 with Self regulated learning questions can help improve the quality of learning and provide a more personalized and effective learning experience for students. These three numbers have a percentage result of 14% for strongly agree answers.

Not only that, then in the disagree section, the highest of the categories in the question with 2 of the same answers results in a percentage figure of 36% with the self regulated learning question which is very easy to apply to students because students are more familiar with technology, the same figure. with question number 13, namely that the self-regulated learning model can be applied at all levels of education. The highest

category of disagreement in subsequent research was with the question of self-regulated learning, the most appropriate solution in the current era of technological development with a percentage figure of 28%. Furthermore, for questions with self-regulated learning, learning makes learning more efficient with a figure of 26% for answers that disagree. The next question for answers that disagree is that self-regulated learning can help improve the quality of learning and provide a more personal and effective learning experience for students with a result of 19%. The next question is that the self-regulated learning model can help teachers explain learning with a percentage figure of 15%. The next question is that self-regulated learning can help teachers solve problems in the learning process with a percentage of 14%. Researchers also received similar responses to the question that self-learning learning models can help teachers adapt learning styles to students' needs with a percentage of 14%. The percentage figure of 12% with self-regulated learning questions can help teachers provide feedback quickly and efficiently by creating a model that can evaluate student work for disagreeing answers. Furthermore, questions related to self-regulated learning can students increase their creativity in learning with a percentage figure of 10%. Researchers also found that the results of respondents were the same as the percentage results of 10% with self-regulated learning questions which could increase student learning effectiveness. In question number 19, it is the same as the previous results, namely that self-regulated learning will help students focus more on learning for disagreeing answers.

The image above explains information about the use of self-regulated learning in increasing student learning effectiveness. Researchers finally found out that self-regulation is very useful because it can make it easier for teachers and students in the teaching and learning process in the classroom. This research focuses on students in utilizing self-regulated learning in education. This research explains self-regulated learning in learning to increase student learning effectiveness. Self-regulated learning research often examines adaptive, learning methods that will be taught according to student ability data. Self-regulated learning models in education require learning evaluations, which are very necessary for students in order to improve student achievement. The use of self-regulated learning is needed in order to motivate students and be able to regulate themselves in learning.

The results of research conducted by Sri Rahayu Utami et al, with the title improving students' self-regulated learning through concise, solution-focused counseling, stated that this dense and solution-oriented consultative technical approach confirms that all individuals have a solution to solve this problem, but sometimes individuals also so too fixated on the problem, that he forgets the advantages. In this study, the researcher refers to a counseling course where self-regulated learning in increasing student learning effectiveness, the results of counseling learning using self-regulated learning are higher than using other methods. However, in the article there is a comparison between self-regulated learning and others. Because if you use self-regulated learning, students' educational learning outcomes will become better understood in this way.

CONCLUSION

Based on the description above, the researcher concluded that many students did not understand the understanding given by the teacher. Due to a lack of awareness of the importance of education, the goals of education have not been achieved. One way to overcome this problem is the need for self-regulated learning, which will help teachers and students in the teaching and learning process. Student learning will increase student potential and will increase student achievement. With self-regulated learning, it can motivate students to become independent students. This also does not rule out the possibility for students who are lazy about studying. Researchers also concluded that using a method like this would make it easier for students to understand the lessons explained by their teacher because they had studied independently before the lesson started. Efforts made by teachers to improve student learning achievement include the use of self-regulated learning to obtain student data so that the methods provided are right on target and run smoothly.

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