



The Effectiveness of Self-Regulation Strategies to Increase Achievement Motivation in Elementary School Students

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ABSTRACT

Purpose of the study: Good academic achievement will be fulfilled if students have the motivation to excel but some students have problems with the motivation to achieve. The purpose of this study is to test the effectiveness of self-regulation strategies in increasing student achievement motivation.

Methodology: This study uses an experimental quantitative method with a one group pre-test post-test research design. The sampling technique used purposive sampling, a research sample of 10 students in grade V of SDN Kedung Waduk 01 Sragen. The data collected is in the form of a score in the form of a percentage. The validity of the data was tested using pretest and posttest. Data analysis was carried out using the Wilcoxon Signed-Rank Test.

Main Findings: The results of the study showed an increase in the percentage of student achievement motivation indicators by 71.2 (high) from the initial condition of 25.9 (low). Self-regulation strategy with a standard deviation of 09.95 and a standard error mean of 4.70. After receiving treatment, the self-regulation strategy was seen to increase with a standard deviation of 8.74 and a mean error standard of 4.00.

Novelty/Originality of this study: It can be concluded that the motivation of students to achieve achievement after receiving treatment (Self Regulation Strategy) is higher before receiving treatment (Self Regulation Strategy).

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1. INTRODUCTION

The quality of education shows the quality of a nation. If the quality of education is good, then the human resources are also quality and have an impact on the progress of a nation. Education is the most important process in producing quality next generations [1], [2]. But in reality, until now Indonesia still has problems in the world of education so that Indonesia lags behind other countries in education. Developing countries like Indonesia certainly really need good quality of their human resources [3], [4].

Based on data released Worldtop20.org Indonesia's education ranking in 2023 is ranked 67th out of 203 countries in the world. Indonesia's ranking is side by side with Albania in 66th position and Serbia in 68th place. Worldtop20.org is a site that often shares education rankings from various countries. One of the programs is the World Top 20 Education Poll [5], [6]. Launching the worldtop20.org website, the World Top 20 Education Poll routinely conducts surveys related to the ranking of the 20 best education systems in the world from 203 countries.

Newspaper homepage: <http://cahaya-ic.com/index.php/JBER>

Worldtop20.org collected statistical data collected from 6 international organizations. The organizations are OECD, PISA, UNESOC, EIU, TIMSS, PIRLS. This poll was conducted by a non-profit organization in the field of education, namely New Jersey Minority Educational Development (NJ MED). According to the Education Index issued by Human Development Reports, in 2017, Indonesia was in seventh position in ASEAN with a score of 0.622. The highest score was achieved by Singapore, which was 0.832. The second place is occupied by Malaysia (0.719) and followed by Brunei Darussalam (0.704). In fourth place are Thailand and the Philippines, both of which have a score of 0.661 (tirto.id).

One of the components of success in education is influenced by the motivation to excel that students have. Achievement motivation is the encouragement or motive that exists in each student to direct their behavior so that they can achieve success in their studies and education [7]. Performance-oriented behavior implies a commitment to standards of excellence and evaluation of performance outcomes. This requires cognitive abilities that individuals must acquire during their development before they can behave in a way that is motivated by achievement [8]-[10]. Good academic achievement will be fulfilled if students have the motivation to excel. Motivation to achieve, in particular, seems to play an important role for talent development and subsequent success [11]-[13]. So that if students have the motivation to excel, students will try to achieve achievements in accordance with the standards that have been set. Revealed that the most important motivation in the world of education is the motivation to achieve [14], [15].

Motivation to excel is important for students to achieve achievements, one of which is in elementary school students. Elementary school is the first level of education that every child undertakes [16], [17]. In general, the role and importance of elementary schools is very large in shaping and preparing a quality young generation. Through a systematic and targeted teaching and learning process, Elementary School assists children in developing various aspects of their lives.

Table 1. Data on the Number of Elementary Students by Region

Yes	Propinsi	Number of Students
1	West Java	9.7 million
2	East Java	6.55 million
3	Central Java	6.18 million
4	North Sumatra	3.17 million
5	Banten	2.44 million

Based on the data above, it can be said that the province of Central Java ranks 3rd in the number of elementary school students in Indonesia, so it is the main concern for educators or teachers in elementary schools to increase the motivation of their students to excel. But the reality is that the academic demands of students are getting higher but their learning abilities are mediocre so that the impact on their learning achievement is not as expected. Motivation is the basic drive that moves a person to behave [18], [19].

Based on an interview with a grade V teacher of SDN Kedung waduk 01 Sragen, some subject scores are low because students underestimate them because previously they were always assisted by teachers. The low interest of students in learning because they are only interested in the subjects they like. The researcher also conducted interviews with seven grade V students of SDN Kedung Waduk Sragen about school assignments, students often copy their friends' assignments when students feel difficult so there is no effort to do the assignment. The results of interviews with classroom teachers and students can be concluded that motivation for achievement is low.

Stated that the most important motivation in education is the motivation to achieve [20], [21]. Stated that if students are motivated to excel, then student learning outcomes will also increase. And vice versa, if students do not have motivation to achieve their achievements, then it can affect their learning outcomes. Students with strong motivation to achieve from within will have a desire or expectation for high success and are supported by hard work behavior to achieve their goals.

According to [22] one of the factors that affect achievement motivation is from within the individual, which is related to self-regulation. Found that there was a strong relationship between achievement motivation and self-regulation with a correlation value of 0.687 and a significant value of $0.00 < 0.05$. It is concluded that student self-regulation has a significant influence on students' motivation to achieve in the implementation of blended learning. Positive influence means that the higher the self-regulation, the higher the Achievement Motivation, on the contrary, the lower the self-regulation, the lower the Achievement Motivation.

2. RESEARCH METHOD

This study uses a quantitative approach with a pre-experimental design, especially the one-group pretest-posttest design. The quantitative approach was chosen because it is suitable for objectively measuring the influence of a treatment through numerical data [23], [24]. The pre-experimental design was used because it involved only

one group of subjects given the treatment without the control group as a comparator. In this design, measurements are taken before (pretest) and after (posttest) treatment is given, to find out the difference in results that show the presence or absence of the effect of the treatment. The experimental method itself is defined as a research method that aims to determine the influence of a certain treatment on other variables under controlled conditions [25].

The subjects in this study are grade V students of SDN Kedung Waduk 01 Sragen Regency which totals 15 students. However, based on the results of interviews with the principal and teachers of grade V and considering recommendations from the school, 10 students with low achievement motivation levels were selected as a research sample. This sampling technique is purposive sampling, which is the deliberate selection of samples based on certain characteristics that are relevant to the purpose of the research. The focus of this study is to find out the extent to which the treatment provided can affect the increase in the motivation of students who were previously in the low category.

The instruments used in this study consist of two types, namely:

- Questionnaire or questionnaire: Used to measure the level of motivation for students' achievement before and after being given treatment. This questionnaire was given to 10 sample students who had been selected. The items in the questionnaire are compiled based on relevant achievement motivation indicators, and have gone through a content validation process by experts to ensure the reliability and validity of the instruments.
- Interview: Conducted in a semi-structured manner to principals and teachers of grade V as supporters of quantitative data. The interview aims to obtain additional information related to student characteristics, learning context, and consideration of the selection of research subjects.

The research procedure includes hypothesis formulation, group data collection, data analysis with t. test conclusion and interpretation of results.

The data analysis in this study used an inferential statistical test, namely a paired sample t-test. This test is used to determine the average difference between two measurements (pretest and posttest) that come from the same sample. With this test, it can be found out whether the treatment given results in a significant change in the student's motivation to achieve. The test was carried out with the help of statistical software such as SPSS, and the results were interpreted based on the significance value (p-value) at a 95% confidence level ($\alpha = 0.05$).

3. RESULTS AND DISCUSSION

Before implementing the self-regulation strategy, the researcher first conducted observations and interviews with grade V teachers to obtain information about the level of motivation for students' achievements. Based on the results of the questionnaire and interview, the researcher obtained information that there were several students who had low motivation to achieve. The results of interviews with grade V teachers, it can be stated that the learning outcomes of grade V students of SD Negeri Kedung Waduk 01 Sragen as a whole have met the KKM (Minimum Completeness Criteria). However, there were 10 students who showed low motivation to achieve by giving questionnaires. The results of the questionnaire validity test, the number of student achievement motivation questionnaire items used for pre test and post test was 25 questionnaire statement items. The results of the above reliability test show that Cronbach's alpha result is 0.895, which is $0.895 > 0.60$. The results of the reliability test of the achievement motivation instrument can be declared reliable. The data of this study was obtained by using questionnaires to 10 research subjects with a total of 25 questionnaire items.

The next stage is the implementation of the Self Regulated Strategy using the model developed [26]. The following are the steps of the action plan given to students.

Table 2. Stages of Learning Strategies Based on Self-Regulation

Stages of Student Action	Student Action
Setting Goals	Students are required to fill out a "I Will Achieve This" sheet in which students are required to set their short-term and long-term goals.
Capability Analysis	Students are asked to fill out the "I Can" table where the table contains the achievements that students have achieved before, what the students felt when they succeeded in achieving these achievements, and what the students prepared at that time. Students are then asked to fill in a "Conquering Challenges" table where the table contains the achievements that students want to achieve, the level of difficulty in achieving these achievements, and the level of possibilities of achieving them.
Recognizing Potential	Students are asked to fill out the "Recognizing My Potential" sheet where the width contains the student's views on the strengths, weaknesses, opportunities and challenges that exist in him in achieving his goals
Time Management	The researcher explained the importance of managing time for students at this time. Managing time is a student's effort to manage their time in such a way that every activity planned to

	achieve learning goals can be done without interfering with other activities. Students explained that by managing time, the impact will be that students will get success (achievements, passing UN, optimal grades), efficiency (can be more practical and easy when doing assignments because it saves more time), and function for health because it can reduce stress and anxiety. The researcher then explained that there are many things that can hinder students in managing their time, such as difficulty in making priorities about the work that must be done first, more interesting activities such as gathering with friends, playing <i>games</i> , and playing cellphones.
Create a Study Schedule	Students are asked to fill out the Daily Study Schedule Sheet and ask him or her for a commitment to the study hours that have been made and agreed upon. This sheet will be monitored for one time a week.

Based on the results of the data description, it is known that there is a difference between the results of the pre-test and post-test. This difference in results shows the level of motivation for students' achievement before and after being given a self-regulatory strategy. Based on the results of the description data, it can be concluded that the provision of self-regulation strategies is very effective in increasing low achievement motivation in grade V students of SDN Kedung Waduk 01, Sragen Regency.

Table 3. Preparation of Pre-Test and Post-Test

Name	Number of Pretests	Category	Number of Posttests	Category	Increase
ABA	94	Keep	104	Tall	10
AP	88	Keep	99	Tall	10
AAP	115	Tall	118	Very High	3
ARS	98	Tall	105	Tall	4
APW	73	Low	96	Keep	23
ARR	76	Low	92	Keep	16
TO	76	Low	98	Tall	22
AVE	95	Keep	101	Tall	6
ADR	97	Tall	106	Tall	9
TO	76	Low	97	Tall	21
Total	888		1016		154
Average	88,80		101,60		12,8

The data above shows the difference before and after the self-regulation strategy was given that there was a significant improvement between pre-test and post-test.

Table 4. Paired Samples Test

Paired Differences								
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Pretest-Posttest	-12.800	7.208	2.279	-17.956	-7.644	-5.616	9	.000

The results of the paired sample t test from the data above showed a t value of 5.616. This means that if the tcount is > table, then Ho is rejected and Ha is accepted, but if the tcount is < ttable, then Ho is accepted and Ha is rejected with t table of 1.833. The results of the paired sample t test in this study were 5,616 > 1,833 and the value of sig. (2-tailed) shows 0.000 where 0.000 < 0.05 means that the results of the hypothesis analysis of Ho are rejected and Ha is accepted. The results of the study can be concluded that there is a significant difference between the results of the pre-test and post-test of self-regulation strategies on the motivation to excel in grade V of SDN

Kedung Waduk 01 Sragen. The results of this study are also in accordance with the results of interviews with the principal and teachers of grade V of SDN Kedung Waduk 01 Sragen that: The motivation of students to excel, especially in class V, can be improved by using self-regulation strategies in classroom learning. Self-regulation is an internal factor that has a great influence to provide encouragement for a person to achieve his goals so as to foster motivation to achieve. Motivation to perform is the first step in producing higher performance.

This research is in accordance with the research that there is a positive correlation between self-regulated learning strategies and learning achievement [27], [28]. In fact using linear regression analysis found that the self-regulation variable was positively correlated with the achievement motivation variable [29]. The results of this study are also in line with research conducted by that self-regulation is a person's process in regulating their own achievements and performance [30]. The concept of self-regulation and achievement both have a close relationship. When a person has positive self-regulation, it will have reciprocity in the achievement of achievements. As for accelerating the relationship between the two, it is necessary to make efforts to foster self-motivation. Motivation will affect a person's commitment to what they aspire to, so the stronger the motivation, the stronger the self-regulation of a person in achieving achievements. On the contrary, weak motivation affects self-regulation which causes a decrease in achievement. This research is also supported the results of research that student has a significant influence on student motivation to excel [31], [32]. Positive influence means that the higher the self-regulation, the higher the Achievement Motivation, on the contrary, the lower the self-regulation, the lower the Achievement Motivation.

The motivation for achievement of grade V students of SDN Kedung Waduk 01 Sragen Regency is an intrinsic motivation in learning that will encourage students to actively achieve achievements so that it is necessary to build self-regulation of factors that exist in them from an early age (SD). This internal factor has a great influence on giving rise to motivation for a person to achieve his goals. This also plays an important role in the emergence of achievement motivation because it is the first step in a person's success and success.

Previous research, the research subjects were junior high school students and even college students, but in this study, the self-regulation strategy was applied to elementary school children with the assumption that even though they are still children (SD), they need to be given self-regulation because this skill helps students regulate their thoughts, emotions, and behaviors to achieve learning goals, increase motivation, and develop independence in learning. Even self-regulation can help students in impulsivity, increase focus/concentration and manage time effectively considering that elementary school children are still children. This is confirmed by the results of an interview with a grade V teacher of SDN Kedung Waduk 01 Sragen that self-regulation makes students more active, more courageous in expressing opinions and questions and being able to make decisions from every problem they face. In addition, students of grade V of SD N Kedung Waduk 01 Sragen Regency not only know the needs in each school assignment given, but students can apply methods or strategies that will be used in meeting the needs of their schoolwork. This study is in line with the research of [33] that students who have strong self-regulation skills are better able to adapt to online learning, stay motivated, and achieve better academic results compared to students who lack these skills. Students who are able to plan, manage a study schedule, and monitor their own progress tend to be more motivated because they feel they have control over their learning, even in challenging situations. The study highlights the importance of developing self-regulation skills as an integral part of education, especially in the face of uncertain conditions that require rapid adaptation.

This research is only limited to the implementation of basic self-regulation strategies because it is for elementary school students. The self-regulation strategy is one of the innovations or strategies to shape students to have motivation to excel. One of the factors that affect achievement motivation is from within the individual, which is related to self-regulation [34]. Self-regulation that has been introduced from an early age is expected to be the foundation in increasing motivation to achieve. The positive impact of self-regulation since elementary school is having high self-awareness, increasing the motivation to achieve in him so that he continues to upgrade himself by reading a lot, looking for useful information, wanting to learn new things, having an optimistic attitude about his goals and future. This research is recommended for students in grade V of elementary school or grade VI of elementary school because it is not appropriate because under grade V of elementary school are still children and have not been able to manage themselves optimally. Self-regulation strategies in learning are suitable for all levels of education, except for third grade elementary school and below, some suggest that learning strategies with self-regulation are not suitable [33], [35].

4. CONCLUSION

Based on the results of the study, it can be concluded that the self-regulation strategy is effective in increasing the motivation to achieve achievement of grade V students of SDN Kedung Waduk 01 Sragen Regency. The results of the analysis of the research data prove that there is a difference from the paired sample t test that has been carried out by the researcher. The results of the study showed that grade V students of SDN Kedung Waduk 01 Sragen experienced an increase in their motivation to excel which was shown by changes in students in terms of cognitive, motivation, and also behavior. What supports this research process is the desire in students

(internal motivation) to excel so that their goals and goals can be achieved. Students are very cooperative, enthusiastic and open in participating in the research process. The impact of the treatment process is also quickly felt by students through positive behavioral changes that are shown. This research is expected to be a reference or reference material for future researchers related to self-regulatory strategies for elementary school students in increasing motivation.

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