

Implementation of the Discovery Learning Model to Increase Student Learning Motivation at Alue Bata Public Elementary School

Husniah ✉, SD Negeri Tadu Ateuh, Indonesia
Erna Hastria, SD Negeri Alue Bata, Indonesia

✉ husniah678@gmail.com

Abstract: This research was carried out to increase the learning motivation of grade V students of SD Negeri Alue Bata, Tadu Raya District, Nagan Raya Regency through the application of the discovery learning model. The background of this research is the low motivation of students in the learning process, which is characterized by passive student involvement, low curiosity, and the tendency of learning that is still teacher-centered. The type of research used is Class Action Research (PTK) which is carried out in two cycles. The research subjects amounted to 25 students, consisting of 16 males and 9 females. The research procedure includes the stages of planning, implementation, observation, and reflection. Data was collected through observation, questionnaires, tests, and documentation, then analyzed descriptively, qualitatively, and quantitatively. The results of the study showed an increase in student learning motivation from pre-cycle to cycle II. In the pre-cycle, most students have not shown interest and activeness in learning. After the implementation of discovery learning in the first cycle, learning motivation increased even though it was not evenly distributed. In cycle II, students are more active in asking questions, answering, and participating in learning activities. The conclusion of this study is that the application of the discovery learning model has proven to be effective in increasing the learning motivation of grade V students of SD Negeri Alue Bata.

Keywords: Discovery learning, learning motivation, elementary school students.

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INTRODUCTION

Education is a sacred process that has an important role in preparing the younger generation to be able to live life and fulfill various life goals effectively and efficiently. More than just teaching, education is understood as a process that fosters self-awareness in individuals and society to continue to develop. Through education, a nation can pass on values, culture, knowledge, and ways of thinking to the next generation, so that they have provisions to face the challenges of the times. This awareness is the foundation for creating a society that is not only intellectually intelligent, but also emotionally and spiritually mature. Thus, education is not only related to the transfer of knowledge, but also to the development of attitudes and character (Junias, 2014).

Efforts to improve the quality of education are a shared responsibility involving various parties, ranging from teachers and education staff, parents, students, the community, to the government. The ultimate goal is to produce human resources (HR) who are qualified, resilient, and able to contribute positively to the development of the nation. However, the facts on the ground show that one of the major problems faced by Indonesia is the low quality of education. Although various efforts have been made, such as improving the curriculum, training and improving teacher qualifications, procurement of books and learning tools, improving infrastructure, and improving school management, the results have not been fully adequate. Indicators of education quality, such as competency achievements, learning outcomes, and the quality of graduates, still do not show an even increase (Mardhatillah, 2015).

In the context of the teaching and learning process, teachers have a key role in creating a conducive learning atmosphere. Fun learning is the basis for students to like certain subjects. When students feel happy, they will be encouraged to study with enthusiasm, so that motivation to learn increases. Conversely, if students have no likes or interests, they tend to be passive and less engaged in the learning process. This lack of motivation is often an obstacle for students in understanding the material and achieving optimal learning outcomes. Learning motivation is essentially a series of efforts that make a person want to do something because there is a certain goal to be achieved (Amna, 2017).

Teachers are required to be able to design learning that motivates, encourages curiosity, and actively engages students. Thus, students become not only recipients of information, but also active seekers of knowledge. Such a learning atmosphere will help students develop critical thinking skills, be creative, and be able to solve problems they encounter in daily life. This condition is in line with the expectations of modern education which not only emphasizes the achievement of academic grades, but also the formation of character and social competence (Khausar, 2014).

The results of the researcher's initial observation in grade V of SD Negeri Alue Bata, Nagan Raya Regency showed that there were several obstacles in the teaching and learning process. Teachers tend to be more dominant in teaching, while students are used to only receiving explanations without much interaction. This condition makes students passive, less daring to ask questions, and just listen without being actively involved. The learning process also seems monotonous and does not foster curiosity. As a result, students' learning outcomes are relatively low and their motivation for subjects also decreases. This situation is particularly concerning, especially in learning that demands an understanding of basic concepts such as math or science. If students' curiosity is not aroused from the beginning, then the next learning process will be even more difficult.

To overcome these problems, innovative, creative, and student-centered learning strategies are needed. One alternative that can be used is the discovery learning model. This model gives students the opportunity to discover concepts or principles on their own through a series of learning activities. Discovery learning encourages students to actively observe, ask questions, test hypotheses, and draw conclusions. In other words, students not only receive information provided by the teacher, but also experience the process of seeking knowledge for themselves (Nabila, 2018).

Teachers in discovery learning play the role of facilitators who guide students to be able to discover new knowledge. Teachers provide stimulus, give direction, and create conditions that encourage students to think critically. In this model, students become active learning subjects, not just objects. This is in line with the view of constructivism which emphasizes that knowledge is built by individuals through experience and interaction with their environment. Laksana (2018) explained that discovery learning helps students understand concepts more deeply because they are directly involved in the discovery process.

The application of discovery learning is believed to be able to improve learning outcomes as well as student motivation. The discovery process makes students feel like

they have a meaningful learning experience, making it easier to remember and understand the material. In addition, this model also trains social skills because students often work in groups to solve problems. By working together, students learn to respect the opinions of others, develop effective communication, and build a sense of responsibility.

From this explanation, it can be understood that the challenge in the world of education does not only lie in the provision of facilities, infrastructure, or curriculum, but also in how the learning process takes place in the classroom. Teachers as the spearhead of education need to continue to innovate in order to be able to create a conducive, interesting, and encouraging active learning environment for students. Discovery learning is one of the strategies that can be implemented to answer these challenges. With this model, students are expected to be able to develop curiosity, solve problems, and gain a deep understanding of the subject matter.

Education as a process must not stop at knowledge transfer efforts, but must also form students' character, thinking skills, and positive attitudes. Improving the quality of education will be achieved if teachers and all related parties work together to provide learning that is fun, innovative, and oriented to the needs of students. Therefore, choosing the right learning strategy such as discovery learning is one of the keys to success in improving the quality of education in Indonesia.

METHODS

This study uses a qualitative approach. The qualitative approach was chosen because it is in accordance with the research objectives that seek to understand the phenomenon in depth, comprehensively, and contextually. Qualitative research is essentially research that intends to understand the experience of research subjects holistically by using descriptions in the form of words, language, and various relevant scientific methods (Moleong, 2017). With this approach, researchers can describe the real situation in learning in more detail, especially related to efforts to increase student learning motivation through the application of the discovery learning model.

The type of research used is Class Action Research (PTK). Classroom action research is oriented towards real problem solving that occurs in the classroom. Arikunto (2015) explained that PTK aims to improve and improve learning practices continuously, as well as strengthen the professionalism of teachers. PTK is carried out in the form of scrutiny of learning activities in the form of actions that are deliberately designed and implemented together in the classroom, with teachers and students directly involved in the process. These actions can be in the form of implementing certain learning strategies that are expected to be able to improve the learning problems that are being faced.

This research was carried out at Peureumeue State Elementary School, Kaway XVI District, West Aceh Regency. The research period lasted from May to July 2024. The determination of this location is based on the results of initial observations which show that the learning motivation of grade V students is still low and learning tends to be monotonous, so a more innovative learning model is needed. The subjects of the study were all 25 students of class V, consisting of 16 male students and 9 female students. The object of the research is focused on efforts to increase students' learning motivation through the application of the discovery learning model in subjects in grade V.

The data collection techniques in this class action research use several instruments designed to support the validity of the findings. According to Moleong (2017), instruments in research play an important role because the quality of data is highly determined by the validity of the instruments used. This research instrument consists of observation, tests, questionnaires, and documentation. Observations are carried out to record the activities of students and teachers during the learning process. In the psychological context, observation means observation using all sensory tools to obtain data related to the phenomenon being studied. Through observation, researchers can find out the extent to

which students are active in learning and how teachers carry out learning with the discovery learning model (Arikunto, 2015).

Test instruments are used to measure students' understanding of the subject matter. The tests used are in the form of pre-test and post-test, each consisting of 10 multiple-choice questions with a certain score weight. Pre-tests are given before the application of the discovery learning model to determine students' initial abilities, while post-tests are given after implementation to measure the progress of their understanding. This test allows researchers to obtain quantitative data that shows changes or improvements in student learning outcomes (Arikunto, 2014).

In addition, questionnaires are used to obtain data on students' responses to learning. The questionnaire contains a number of questions related to learning motivation, students' perception of discovery learning, and their level of involvement in the learning process. This instrument is systematically compiled and given to students after the learning is completed, with the aim of knowing students' learning responses and motivations more broadly (Sukardi, 2018).

Documentation is also an important instrument in this research. Documentation is done by capturing important events in the form of photos or other visual records that occur during the learning process. The documentation supports observation and test data by providing tangible evidence of the classroom situation when the discovery learning model is applied. Photos of learning activities, interactions between teachers and students, and student activities in groups became complementary data that strengthened the research findings.

Furthermore, the research instrument consists of several specially designed sheets. The observation sheet covers the observation aspects of teachers and students. Teacher observation is used to assess the extent to which teachers are able to carry out learning with the discovery learning model according to the plan that has been made. Student observations are used to assess student activity, involvement in discussions, and seriousness in participating in learning activities. Test sheets in the form of pre-test and post-test questions are used to measure students' understanding of the material with the theme of caring for the environment that has been determined. The questionnaire sheet serves to obtain additional information about student motivation, while the validation sheet is used to ensure the validity of the instrument used. This validation instrument is important so that the data obtained has a good level of reliability. Documentation in the form of photos of activities is also additional evidence that the research process was really carried out.

The data processing technique in this study was carried out descriptively by utilizing the percentage technique. The observation data was analyzed to determine the tendency of student and teacher activities during the learning process. The percentage of achievement is then interpreted into categories, for example very good if it reaches 80–100%, good if it reaches 60–80%, fair if 40–60%, low if 20–40%, and very low if it is less than 20%. This category is used to assess the extent of student involvement and teacher success in implementing discovery learning.

In addition to observation, test results and questionnaire data are also analyzed using percentages. The percentage formula used is a comparison between the number of scores obtained and the maximum number of scores, then multiplied by one hundred. The test result data was analyzed to see an increase in student understanding from pre-test to post-test. Meanwhile, the questionnaire data was analyzed to see the extent to which students' motivation increased after participating in learning. Data interpretation uses the same categories as observations, namely very good, good, adequate, low, and very low (Sugiyono, 2018).

With data processing techniques like this, researchers can comprehensively assess the effectiveness of the application of discovery learning, both in terms of cognitive (test results), affective (student motivation from the questionnaire), and psychomotor and participation (observation results). Quantitative data in the form of percentages is

combined with qualitative data from documentation and field notes, thus providing a more comprehensive picture of the changes that occur in the classroom. Overall, this research method is designed to answer the problem of low learning motivation of grade V students of Peureumeue State Elementary School. With a qualitative approach and classroom action research design, this study seeks not only to generate numerical data, but also to have an in-depth understanding of how discovery learning can affect student motivation and engagement. The process that is carried out cyclically allows teachers to improve learning steps from one cycle to the next, so that the goal of increasing learning motivation can be achieved optimally.

RESULTS

This classroom action research was carried out in two cycles with the aim of increasing the learning motivation of grade V students of SD Negeri Alue Bata, Tadu Raya District, Nagan Raya Regency through the application of the discovery learning model. The subjects of the study were 25 students consisting of 16 males and 9 females. The research started from the pre-cycle to find out the initial condition of the students, then continued to cycle I and cycle II.

Based on the results of observations in the pre-cycle, it was found that most students showed low motivation to learn. This can be seen from the lack of participation in learning, lack of initiative to ask questions, and passive attitude when the teacher explains the material. Some students seem to not pay attention to the teacher's explanation and only receive information passively. The results of the motivation questionnaire also showed that only about 30% of students were in the good category, while the rest were still in the moderate to low category. This is in accordance with the opinion of Sardiman (2011) that low motivation can be seen from the lack of student involvement in learning activities, such as asking questions, answering, and completing assignments seriously.

In addition, the results of the pre-test also show that students' understanding of concepts is still low. Most students obtained grades below the minimum completeness criteria (KKM). This condition reinforces the finding that students' learning motivation needs to be improved through innovative learning strategies and actively engage them. The implementation of the first cycle begins with the implementation of discovery learning in accordance with the learning plan that has been prepared. The teacher provides stimulus in the form of contextual problems that are relevant to students' daily lives, then directs them to observe, discuss, try, and draw conclusions. During the learning process, there was an increase in student involvement compared to the pre-cycle. Some students began to dare to ask questions and answer the teacher's questions.

Based on the results of observations, around 55% of students showed motivation to learn in the good category. This figure increased compared to pre-cycle, although it has not reached the research target. The results of the post-test in cycle I also showed an increase in student scores, where more students managed to surpass the KKM. However, there are still some students who are not active in the discussion and seem hesitant to express their opinions.

Reflection at the end of cycle I shows that the main obstacle lies in the lack of confidence of some students to be actively involved. Teachers still need to give greater encouragement and create a more conducive learning atmosphere so that all students feel comfortable participating. This is in line with the findings of Slavin (2015) that students' motivation to learn can be improved through consistent teacher support, positive feedback, and emphasis on group cooperation.

Based on the results of the reflection, teachers made strategic improvements in cycle II. Teachers provide more opportunities for students to lead group discussions, clarify instructions, and reward students who actively participate. Discovery learning activities are made more varied with the use of concrete media, so that students can more easily understand the concepts learned. The results of the observations showed a significant

improvement. Most of the students seemed enthusiastic about participating in learning, were more courageous in asking questions, and actively expressed their opinions in group discussions. About 85% of students show motivation to learn in the good to very good category. The motivation questionnaire given after cycle II also showed an increase in the average score compared to cycle I.

In addition, the results of the second cycle post-test show that almost all students obtained scores above the KKM. This shows that increased learning motivation also has a positive impact on student learning outcomes. These findings are consistent with the opinion of Hmelo-Silver (2004) who stated that discovery learning encourages deeper cognitive engagement thereby improving students' academic understanding and achievement. When compared to the pre-cycle, there was a sharp increase in learning motivation after the implementation of discovery learning. In the pre-cycle, the majority of students are in the low motivation category. In the first cycle, the motivation rate increased to around 55%, although it had not reached the target. The improvement of the strategy in cycle II succeeded in increasing motivation by up to 85%, which means that almost all students showed active involvement.

This increase is also reflected in learning outcomes. From the initial condition where most students did not reach the KKM, the results of the second cycle post-test showed that almost all students had completed. This reinforces the statement that high motivation to learn is directly proportional to increased learning outcomes (Ormrod, 2012). There are some important findings in this study. First, discovery learning has proven to be effective in encouraging student activity because it gives them the opportunity to discover concepts independently. Second, learning motivation increases when students feel they have a role in the learning process, not just as recipients of information. Third, teacher support in the form of guidance, feedback, and rewards contributes greatly to increasing student motivation and confidence.

DISCUSSION

The results of the study show that the application of the discovery learning model is able to increase the learning motivation of grade V students of SD Negeri Alue Bata, Tadu Raya District, Nagan Raya Regency. This increase in motivation can be seen from significant changes from pre-cycle to cycle II, both in terms of student involvement, activeness in asking and answering, and learning outcomes. This finding is in line with Bruner's theory (1961) which asserts that discovery learning provides opportunities for students to be actively involved in discovering knowledge so as to generate curiosity and intrinsic motivation.

In the pre-cycle, students still show passive tendencies. This is natural because the learning pattern was previously more teacher-centered. Teachers tend to dominate the learning process with the lecture method so that students only receive information without room for exploration. This condition is in line with the results of Arends (2012) research which states that traditional teacher-centered learning often hinders student involvement and has an impact on low learning motivation.

After action was taken in the first cycle, it was seen that there was an increase in student participation even though it was not evenly distributed. Some students began to dare to ask questions and answer the teacher's questions, although some were still passive. This suggests that the application of discovery learning requires adaptation because students need to familiarize themselves with new learning patterns that demand active involvement. Slavin (2015) emphasized that changes in motivation and learning outcomes take time because students must go through a process of adjustment to learning strategies that emphasize cooperation and active involvement.

In cycle II, the increase in learning motivation is more pronounced. Most of the students showed high enthusiasm, actively discussed, and dared to express their opinions. These results support the research of Hmelo-Silver (2004) who stated that discovery

learning encourages deeper cognitive engagement so that students not only remember information, but also understand concepts meaningfully. The motivation that grows in students is reflected in a significant increase in learning outcomes, where almost all students achieve the minimum completeness criteria.

The practical implication of this study is the importance of the role of teachers in creating a conducive learning atmosphere. Teachers not only act as conveyors of information, but also facilitators who guide students to discover knowledge. Thus, students have the opportunity to develop curiosity, confidence, and critical thinking skills. Sardiman (2011) explained that learning motivation will grow when students feel actively involved and have a role in learning. In addition, the success of the implementation of discovery learning is also inseparable from the support of the learning media used. Concrete media helps students understand abstract concepts more easily. This finding is in line with the results of Nabila's (2018) research which shows that the use of media in discovery learning can increase students' motivation and understanding of subject matter. Thus, the integration of discovery learning and relevant media can be an effective strategy in improving the quality of learning in elementary schools.

When compared to previous research, the results of this study have similarities with the research of Laksana (2018) which found that the application of discovery learning in elementary schools was able to increase student motivation and learning outcomes. This research also strengthens Vygotsky's (1978) theory about the importance of social interaction in learning, where group discussions that occur in discovery learning provide opportunities for students to learn from peers. These interactions help students build a better understanding while increasing motivation to learn. The contribution of this research not only lies in the practical aspect, but also makes a theoretical contribution. The application of discovery learning has been proven to be able to answer the challenge of low learning motivation that many elementary schools still face. With this research, teachers obtained empirical evidence that changes in learning strategies can have a significant impact on student motivation. This reinforces the view that learning innovation is an urgent need in facing the dynamics of education in the 21st century.

In terms of motivation, this study shows that discovery learning is able to foster students' intrinsic motivation. They are driven to learn not because of external factors alone, but because of curiosity and satisfaction in finding knowledge. Ryan and Deci (2000) in the theory of self-determination assert that intrinsic motivation lasts longer than extrinsic motivation. Therefore, the application of discovery learning can be a means to foster sustainable motivation. However, the study also found some challenges. In cycle I, some students still showed hesitation to participate actively. This can be caused by a lack of confidence and learning habits that are still tied to old patterns. Teachers need to continue to provide support and guidance so that all students can adapt. In addition, limited learning time is also an obstacle in optimizing all stages of discovery learning. These findings are in line with the views of Kirschner, Sweller, and Clark (2006) who criticize invention-based learning because it is considered less effective if it is not supported by adequate scaffolding.

Thus, the application of discovery learning needs to be balanced with appropriate mentoring strategies. Teachers must be able to provide scaffolding in the form of instructions, guiding questions, and appropriate feedback so that students can learn effectively. When applied consistently, this model not only increases motivation to learn, but also develops critical thinking, problem-solving, and cooperation skills. This study proves that the discovery learning model is one of the relevant strategies to increase the learning motivation of elementary school students.

CONCLUSION

From the results of the classroom action research carried out by the researcher, it can be concluded that the use of the Discovery Learning learning model in this study is carried

out in the form of 2 repetitive cycles in which there are four main stages of activities, namely planning, action, observation, and reflection. In the pre-cycle of 25 students, there were 6 students who completed or (24.00%) and 19 students who did not complete (76.00%), while in the first cycle of 25 students there were 10 students who completed or (40.00%) and 15 students who did not complete (60.00%). Furthermore, in cycle II, there was a very significant increase in student learning outcomes, namely out of 25 students, there were 23 students who completed or (92.00%) and only 2 students who did not complete or (8.00%). Students' motivation to learn about the theme of our friend's environment is very high, it is known from the students' answers to the questions in the questionnaire which shows that the percentage of students in the first cycle who answered "strongly agreed" reached 6.7% and in the second cycle increased to 8.9% which shows that the use of the Discovery Learning learning model also triggers the attraction of students to learn about the theme of our friend's environment. The information shows that the Discovery Learning learning model can increase student learning motivation at SD Negeri Alue Bata.

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