Increasing Student's Thinking Creativity Through Project Based Learning

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Abstract: Various strategies can increase students' creative thinking. One of them is a project-based learning strategy. However, in practice, only a few teachers succeeded, especially in implementation procedures. Therefore this study aims to analyze the implementation of learning using project-based learning strategies to increase students' creative thinking. This research was conducted in class 4 SDN Kebonagung II Kraksan Probolinggo. The research method used is case study-based qualitative. Teacher and student research informants. Data analysis uses Miles and Huberman techniques which consist of data collection, data reduction, data presentation, and conclusion. The research results show that. This strategy is implemented by completing a project; students present their findings to other students. To see its success, it describes the initial conditions before implementing the strategy: less than optimal learning and student creativity that still needs to be higher. For this reason, learning is carried out through group discussions and project work. The condition ultimately increases student creativity; this can be seen in the ability of students to express ideas that are in students minds. The research results have implications for improving student learning outcomes.

Keywords: Islamic Education, Thinking Creativity, Project Based Learning

Abstract: Terdapat ragam strategi yang dapat meningkatkan kreativitas berpikir siswa. Salah satunya strategi pembelajaran *project based learning.* Namun dalam penerapannya tidak sedikit guru yang gagal, terutama dalam hal prosedur pelaksanaannya. Maka dari itu penelitian ini bertujuan untuk menganalisis pelaksanaan pembelajaran menggunakan *project based learning* dalam meningkatkan kreativitas berpikir siswa. Penelitian ini dilaksanakan di kelas 4 SDN Kebonagung II Kraksan Probolinggo. Penelitian ini menggunakan Metode kualitatif berbasis studi kasus. Informan penelitian guru dan siswa. Analisis data menggunakan teknik Miles dan Huberman yang terdiri dari pengumpulan data, reduksi data, penyajian data, dan penarikan simpulan. Hasil penelitian menunjukkan bahwa strategi ini diterapkan dengan prosedur menyelesaikan suatu proyek, kemudian siswa mempresentasikan. Untuk melihat keberhasilannya dipaparkan kodisi awal sebelum penerapan strategi yakni pembelajaran yang kurang optimal, dan kreativitas siswa yang masih rendah. Atas hal itu dilakukan pembelajaran dengan pola diskusi kelompok dan pengerjaan proyek. Adapun kondisi akhirnya meningkat kreativitas siswa, hal itu terlihat kemampuan siswa mengeluarkan ide-ide yang ada dalam pikiran siswa. Hasil penelitian berimpikasi pada peningkatan hasil belajar siswa.

Kata Kunci: Pendidikan Islam, Kreativitas berpikir, Project Based Learning

INTRODUCTION

A country's education system is very important because it functions to create a new generation that will rule the country every year. Education is anticipated to produce quality future generations and advance the State (Azima & Dewi, 2022). To produce these achievements, many factors support it, including improving the quality of learning. One of these qualities can be seen from the variety of learning approaches used. Various learning approaches play an important role in increasing student understanding. Learning activities will run smoothly if there is interest in learning or feelings of pleasure and encouragement to participate in learning (D. I. Hapsari & Airlanda, 2019). Students who are interested in learning will participate actively in their education. Students who participate actively in their education develop their skills and creative thinking. This leads to an increase in student learning outcomes.

Therefore, for students to complete their learning objectives, teachers must be able to create a suitable and interesting learning environment for them (Wati & Trihantoyo, 2020). If the teacher only gives lectures continuously to students without any practice, then students will feel bored in class; the teacher must also be able to know the thoughts of his students not only to focus on the lesson but also to focus on the knowledge or creativity of students who are buried. As a result, the teacher must make adjustments and ask students to practice learning in class. One of these improvements is the use of the project learning paradigm. Project-based learning is "a learning strategy that directly engages students in producing a project." This learning paradigm helps students' problem-solving skills through project work that can produce work (Sari & Angreni, 2018).

Schools use a project-based learning approach that produces projects so that teachers can assess the creativity of these students (Agustina, 2021). One of the elementary schools in the Probolinggo district can use project-based learning as a model of a constructivist approach based on project assignments to improve problem-solving. As for some of the problems found at SDN Kebonagung II, the first is the lack of student creativity; the second is the lack of opportunities from the teacher for students to express their creative ideas and the third, students are never told about the creativity that results in a project.

According to Tresnawati (2022), the project-based learning model evaluates students' abilities and the lessons they follow every day by using projects (activities) as learning cores. So with that, the teacher must pay attention to his students because every child has different intelligence, some are intelligent depending on books, and some are also intelligent when they have produced a project, give time to students so that students can also produce projects from their ideas. From the results of research conducted at SDN Kebonagung II regarding project-based learning, it is clear that this learning model is a model that can assess student creativity;

with this model, all teachers can find out students' active thinking because each project will provide students with practical experience, which can enhance their learning and creativity in the long run. So that students can get results from learning, not just sitting still and listening to the teacher's explanation.

Before this research, the school used a based learning model, which only focused on solving a problem without producing a project. After the research, the teacher focuses students on solving a problem by producing a real project. By utilizing the creativity within students, project-based learning incorporates elements of the environment in which students live and learn. In a project-based learning approach, students actively develop their knowledge while working together in groups to create a project that functions as an application of the theory or concept obtained. By constructing knowledge within themselves, students who learn with this model become accustomed to discovering new concepts for themselves. Students who engage in project-based learning are knowledgeable and able to solve problems in a relevant way as well as contextual, cooperative, and with the help of others to enhance their cognitive abilities.

In this alternative method to improve academic achievement, students must participate actively in learning. This will also help them understand and apply the learning outcomes (Tanjung, 2019). An alternative approach to this problem is project-based learning, which engages students actively in learning. Following are some of the benefits of this model: increasing student enthusiasm and encouraging them to take more initiative in problem-solving (Santoso et al., 2020). In addition to attracting students' attention, project-based learning motivates them to actively seek information from books or other sources to solve real-world problems.

This project-based learning model is a learning model that demands the completion of projects from students; teachers can use it to find student creativity that students still need to publish. Teachers can also evaluate projects that students at school have produced because these student projects reflect their creativity without the help of others. Students will feel proud of the teacher's grades because the results and grades are meaningful (Heriyanti & Bhakti, 2022). This model is very useful for teachers because, before this model, teachers could not teach projects to their students; with this model, teachers can set an example for students to learn by producing projects.

Project Based Learning is an activity that requires students to create, solve problems, make choices, or investigate activities. It is given based on challenging questions or assignments, gives students time to practice independence, and ends with a completed item or presentation (Astriani, 2020). The project based learning model, which combines the scientific method (science) or the scientific approach, is intended to motivate students to take the initiative and never give up when facing

difficulties in their academic work. To help students develop critical thinking and reasoning skills when looking for solutions and completing tasks assigned to them, the scientific learning approach combines observing, asking, reasoning, trying, and sharing (Daniel, 2017).

So with that in mind, the learning objectives of this Project Based Learning model prioritize projects or results so that students are not only fixated on books. Still, they must develop their creativity (Nida et al., 2021), and have been observed or examined in grade 4 school students SDN Kebonagung II Kraksaan Probolinggo, many students are smart when listening to the teacher explaining something in class because they remember it outside of class, but some students understand the lesson by practicing before reading and looking at books.

Based on the results of initial observations in grade 4 SDN Kebonagung II Kraksan Probolinggo, many students have creative models, such as poetry (chain poetry), pantun buffoonery (joke rhymes), and speeches. Teachers who find that their students' problem-solving skills fall short of expectations will also gain from this. There need to be more students who can leverage their knowledge and organize their ideas into categories to carry out problem-solving analyses. As a result, students' problem-solving abilities need to be increased because they often need help interpreting the criteria for the problems given (Zulfitri, 2019). This shows the need to create a problem-based learning framework to improve problem-solving skills as a component of higher-order thinking skills. Project-based learning is a constructivism-based methodology for problem-solving that builds on project assignments. Project-based learning will be more effective and meaningful if it is made by paying attention to students' daily lives. Using student creativity can increase the significance of educational activities (Yunitasari & Zaenuri, 2020).

This research has a distinction from previous studies, namely in the research focus and objectives, namely the learning procedure and objectives at the elementary school level. The focus of this research, as has been stated, is a problem often experienced by teachers. Several previous studies have focused on improving learning outcomes, such as research on the application of problem-based learning in improving student academic achievement (Sholihah & Pertiwi, 2019), the application of problem-based learning in improving vocational student learning outcomes (Mulyadi, 2015), the application of a scientific approach through project models based learning on improving learning process skills (Umi, 2015), the application of project-based learning in improving students' thinking skills (Milla Minhatul Maula et al., 2014), the effect of implementing project-based learning in improving high school student learning outcomes (Yance, 2013).

METHOD

This study uses a qualitative research method based on case studies. This

study aims to understand how imaginative learners acquire knowledge and generate projects. The research informants were 15 grade IV students, six boys and nine girls from SDN Kebonagung II Kraksaan Probolinggo. This research was carried out over five months, from January to May 2022. To make projects such as poetry, markers, and whiteboard erasers from recycled materials such as waste paper from HVS, which is no longer used in offices, alamo cardboard, and plastic bags, an educational approach heavily emphasizes project-based learning.

Students' ability to translate what they have learned in class into practical creativity or crafts is considered a source of their work. The project observation sheet serves as the primary research tool. The observed data is presented as a Creative Thinking Scale to measure the project's innovative design process. Student creativity is how children use their imagination to learn in class using a project-based learning style that uses reusable resources. Data analysis used the Miles and Huberman technique, which consisted of cycles of data collection, data reduction, data presentation, and conclusion. Data triangulation and member cross-checking were carried out to ensure the validity of the data.

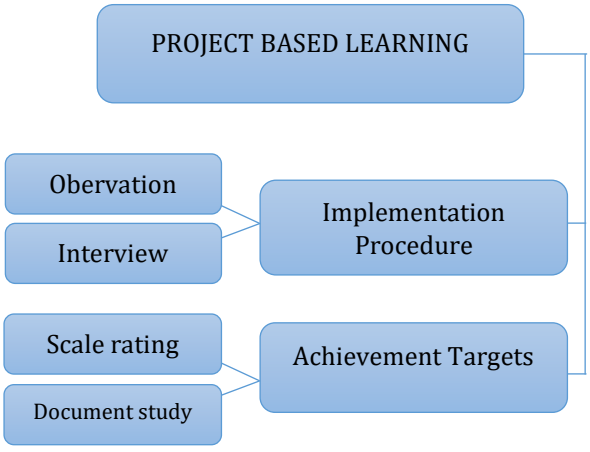

Figure 1. Research Data Collection Techniques

RESULT AND DISCUSSION

Procedures for Implementing Project Based Learning Strategy

To improve students' group work and communication abilities, this research provides student worksheets with questions based on the project Based Learning paradigm to solve (Mawaddah & Mahmudi, 2021). In addition, this may be due to the guidance role that researchers play in the learning process. After completing a project, students present their findings to other students in front of the class to solve the difficulties given for the next. The student's ability to communicate has improved during the discussion project design. These improvements include students' courage to speak up when asked, accurately presenting the results of discussions, and active participation in group projects and individual discussions (Marwah Sholihah & Nurrohmatul Amaliyah, 2022). Improving the Problem-Based Learning model is also not easy because this model will teach students to produce real projects.

The Problem-Based Learning model allows teachers to supervise classroom learning by including project work (Octariani & Rambe, 2018). To improve students' group work and communication skills, this study provided worksheets with problems based on the Projec Based Learning paradigm to solve. And if a learning model like this has been applied, the talents of students who are oppressed will be known by the teacher, so that they can be developed according to the abilities

of each student. According to Wahyu, R. (2012). project Based Learning encourages more active student participation in learning; in this scenario, the instructor only functions as a facilitator. The teacher evaluates the student's work performance, including the visible results of the project being completed.

The author will explore how the Project Based Learning approach is used to help students learn based on the information provided above (Wahyu et al., 2018). project-Based Learning is an activity that requires students to create, solve problems, make choices, or investigate activities. It is offered based on difficult questions or challenges, allows students to exercise their autonomy for a while, and ends with a finished product or presentation (Astriani, 2020). The project Based Learning Model, better known as the scientific approach, is intended to encourage students to play an active role in their education and survive in the face of learning challenges. The scientific learning approach integrates observing, asking, reasoning, trying, and sharing to help students strengthen their critical thinking and reasoning skills when looking for solutions and doing the tasks assigned to them (Daniel, 2017). Increasing students' creative thinking through a based learning project at a school in Kraksaan, Probolinggo (SDN Kebonagung II Kraksaan, Probolinggo). Done through:

Providing motivation

Motivation is input for students from the teacher so that students explore greater enthusiasm. Students can also be creative depending on their abilities to achieve their goals (Nafisah Nor Saumi et al., 2021). The teacher motivates by 10 minutes before the lesson begins and then gives a short lecture to the students, such as "Son, your knowledge is quite extensive. If your knowledge can be developed into projects or results, then your knowledge or knowledge will stick in your mind. And the results you develop can make your teachers and parents proud of your achievements. With such motivation, students will be even more enthusiastic about creativity because motivation and support from parents and teachers are very important for their children.

Giving directions

Direction is the goal of guiding students to do projects according to the theme, and the results obtained are also maximized. Giving these directions can be interrupted while the teacher carries out lessons and can also be done when learning is finished (Supiarmo et al., 2021). With this direction, students can develop independently; their creativity is made by themselves without the help of others. Students will follow all directions from the teacher. Therefore, the teacher must always give directions to students, even if it's only for 10 minutes. With the direction from the teacher, students who initially only focus on learning will be interested in producing projects.

Providing support

Support is support from the teacher and family, so students are more

enthusiastic and develop creativity (Sudipa, 2018). Giving support can be done for 15 minutes when learning will be closed in various ways, one of which is by promising a prize if the child can produce a good and good project, such as "Son, if later you can produce a good project in learning, the mother will give you a gift." Support can be done in many ways depending on the teacher and parents.

So with motivation, direction, and support from the instructor's directions, students can gather as much knowledge as possible about the problems encountered from various sources, then talk about them to find solutions (Purwaningsih, 2021). Students participating in this learning can conduct research, establish a completion plan, and communicate their learning objectives effectively. With the help of this activity, students learn to accumulate knowledge to make plans, try to carry them out, and produce results. The teacher evaluates at the end of learning to determine the extent to which student learning outcomes and the level of creativity increase.

A project-based learning approach can help students become more critical thinkers. This can be seen from the results of the assessment tests, which include challenges that can be turned into projects and pre-and post-test indicators of their creative abilities (Ardiansyah et al., 2020). Using controls, researchers can measure how much students' creative thinking skills have improved. They also found that self-confidence significantly impacted creativity, accounting for at least 40% of the increase over time. The study's findings led researchers to conclude that a project-based learning approach can help students become more creative.

Students' creative abilities are also student abilities (Rahmat Linur & Mahfuz Rizqi Mubarak, 2020). Through the Olympics, painting, writing stories, and creating poetry based on three indications of expression, writing, and drawing, athletes can convey their thoughts or ideas in writing. Project-based learning, on the other hand, by including project work, allows the teacher to regulate how students learn in class if the project requires challenging assignments depending on the problem (Octariani & Rambe, 2018). The project's initial phase involved gathering and incorporating new information based on real-world experiences.

This research aims to ascertain whether students use the Problem-Based Learning learning paradigm effectively in class IV SDN Kebonagung II Kraksan Probolinggo based on the caliber of the project being undertaken. Students at SDN Kebonagung II Kraksan Probolinggo are more productive and like their classes there, according to the findings of the application of the Project Based Learning Model. Because learning using the old method is still rigid or only focused on the teacher, we can compare the hypothesis that learning using the method (Problem-Based Learning) has more improvements compared to using the old method (Sari & Angreni, 2018).

Based on the research above, it was also found that the results from before the project-based learning model with the Project Based Learning model were as follows:

Increasing Student Thinking Creativity

First Conditions

Following are the initial conditions at SDN Kebonagung II before using the Project Based Learning model:

First, the learning carried out by the teacher could be more optimal. Prior learning was focused on books, only listening to the teacher lecture in front, and not focusing on projects; teachers needed to allow their students to produce projects (Laili et al., 2019). The teacher only lectures and gives assignments, so students only think about how the task can be completed. In contrast, students never think about can the assignments given by the teacher produce projects. With this method, little by little, students will be given an example to make the results of what they have learned, especially to produce works.

Second, student creativity still needs to improve in the learning process. The very low creativity of students is because the teacher provides themes that usually produce projects, but the teacher needs to give time for students to work (Hajaroh & Adawiyah, 2018). The teacher only explains and gives the steps for making it, but the teacher needs to allow students to produce a project. So with this Problem-Based Learning model, students can produce results from what has been conveyed by the teacher either by working in groups or individually.

Third, students need to be allowed to control their creativity through tasks that require them to create something related to the subject matter they are studying (D. Hapsari & Wicaksono, 2018). Because teachers may need to pay more attention to children because they are too busy teaching content. The teacher now describes the strengths and weaknesses of each grade IV student to his students while watching from the sidelines.

Action

And the teacher's actions to develop student creativity at SDN Kebonagung II school use innovative based learning project models. The steps are as follows:

First, Grade IV students were divided into several groups by the teacher because that day, there were only 12 students who entered. Hence, the teacher divided the three groups into two students and two female students. Each group should contain both active and less active students because groups of energetic students solve problems faster than groups of less active students when they are grouped. Conversely, if less active students are grouped with other less active students, they will need more time to complete the assignments given by the teacher. Thus, the instructor should divide the class into appropriate groups. The teacher also chose one student to be the group leader in each group. Group A was led by a student named Siti Aisyah, group B was led by a student

named Khusnul Khotimah, and Group C was chaired by a student named Sofiatus Zahra.

Second, the teacher poses a problem for students (Elita et al., 2019). Because, at that time, he was studying the theme of culture. Then the teacher gave an assignment that resulted in handicrafts such as group A making erasers and markers, group B making class attendance, and group C making a class picket schedule. And the results of this lesson project can be utilized in class because, in grade 4, you need a place to store markers safely so that the marker ink doesn't get on the uniforms of teachers and students. The teacher gives a problem to each of these groups so that students in each group can solve the problem given by the teacher. Solve the problem by producing a good project that can be used for the long term.

Third, the teacher conveys the project that students will work on to make works according to the abilities of each student. The teacher must detail the creation of a project, such as a group A making markers and board erasers using used cardboard boxes in the office, group B making a class picket schedule using used HVS paper that is no longer used, and group C making a lesson schedule using also use cardboard material that is no longer used in the office. The teacher also provides instructions on making it and a list of equipment needed to make projects suitable for each subject. For example, used cardboard and unused HVS paper can be picked up in the office, while other equipment, such as rulers, pencils, tape, and scissors, can use your own individually. Students will repeat questions if the teacher's delivery needs to be more detailed. They will waste students' time working, so the teacher must be able to direct students on how to do projects properly and correctly so that students can produce perfect projects.

Fourth, students carry out information-digging in the task. Students have to ask many questions if they still need help understanding what the teacher ordered so they can get all the information and make the project not haphazard. Because the project's results include the values of each group, if you don't understand the teacher's instructions, students are required to ask questions; after all, questions have been answered by the teacher, students must manage the project properly and correctly.

Fifth, students formulate project results. From the project results, students must know the points that will be presented later; for example, the project results have three discussions: what are the materials made of, how are they made, and what are the benefits of the project? So students must be able to determine the essence of the three discussions so that students are not nervous after being in front of the teacher and their friends. One or a representative from the group of students who will present is given directions first by the teacher and given support to ensure they can present the results of their respective projects - respectively.

Sixth, students present the project results to the teacher and other groups. Those who present the results of the project are representatives from each group leader; if you have made and know important points such as the materials needed, the steps for making, and the benefits of the project, then the representatives from the group must present the work or the project in front of the teacher as well as his friends. The representative from the group leader comes forward with the finished project. Brings one notebook accompanied by a pencil to write down questions from other groups. Students can control themselves so they don't get nervous after presenting because presentation and fluency are also plus points for students from the teacher. If one of the representatives of the three groups looks nervous, the value that will be obtained may be reduced.

Final condition

After several months of the Project Based Learning model running in the Kebonagung II SDN school, teachers can discover students' creativity because each student has many different characteristics. Different children will have different creativity and increase student creativity with a based learning model, including:

First, the teacher can find out the creativity of students.

With the Problem-Based Learning model, the teacher can find out the creativity of his students who were initially only fixated on books and who quickly respond to the results of the teacher's lectures in front of them so that, in the end, they can develop their creativity without having to be fixated on books anymore. For example, student A is always fixated on the intelligence book, student A only when the teacher explains it after being given the task to do a project; student A cannot be creative because student A does not think about producing a project, student A only thinks about how to look at the reading in the book and work on it. Assignment only. At the same time, student B can only remember the lesson taught by the teacher if they only lecture in front with results. After the Problem-Based Learning model was developed and it turned out that student A could slowly also be creative, also student B could remember the lessons the teacher had taught last week because they had already produced a project. With different teaching, students will feel quickly bored and sleepy.

Second, students can express their creativity. With this method, students can express their creativity just like the first student can only imagine by reading a book about rhymes with AB-AB rhymes, how to make a place for markers and class schedules, and picket schedules with used cardboard. With this model, students have the right to work, and teachers must give their students time to be creative because not all students understand what the teacher explains without practice. With a new model in schools, teachers must repeat this model by giving their students time to work according to the theme of each lesson so that students can practice what they get from the teacher's explanation in front of them.

Third, students can also issue ideas that are in their minds. With the project-Based Learning model, students can express all the ideas they have and develop them, such as making poems that are originally just ordinary poems that can be assembled into chain poems. And the creative variety that is obtained from each student's creativity, such as class picket schedules, class schedules, and the place for speedo. Students can also make poems and speeches interesting for others to read, so with their creativity, students give a good frame around the edges of the poem. Students also don't let the lesson schedule or projects. If others are not interested, then all students make their respective projects interesting by students giving pictures according to their respective themes so that they look good. After all, students do projects, and the teacher instructs students and grade IV students to show their creativity results to other classes because the results of projects produced by creative students can make other friends interested in doing projects like that too.

Each of the interview results with some pointers from students can help them understand developments from the beginning before the concept of project-based learning existed until it was used. And the principal's response was also good with this model. Even the principal supports the Problem-Based Learning model so that it can be immediately implemented at SDN Kebonagung II schools. The first reason for the principal with the Problem-Based Learning model is so that the principal knows that some of his students are creative, and the results are really real, which can be seen by teachers and friends, can be read by teachers and friends, and can motivate friends. others to be interested in making projects, such as creative students. And also attached some photos of class IV student activities before the implementation of the project-based learning model until the existence of this model. Below are photos of the results of some of the creativity of class IV students described above.

From the results of the photo above, this is after implementing the Problem-Based Learning model in class IV SDN Kebonagung II. The principal recommends that all teachers occasionally have to apply this model, from grade 1 to grade 6, so that teachers can see the creativity of their students. once by the school principal. The school head chooses the 3 best students from the project results; for students whose projects are good, the student gets a prize from the school principal.

CONCLUSION

Based on the explanation above, it can be concluded that the project-based learning strategy is implemented using group discussion procedures and completing projects assigned by the teacher, after which students are asked to present them in front of their classmates. Regarding increasing creative thinking, the initial conditions before implementing the strategy are less than optimal learning and student creativity is still low. For this reason, learning is carried out through

group discussions and project work. The condition ultimately increases student creativity, whichwhich can be seen in students' ability to express ideas in students minds. The research results have implications for improving student learning outcomes.

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