

IMPROVING CRITICAL THINKING SKILLS OF GRADE III STUDENTS THROUGH PROJECT-BASED LEARNING (PjBL) IN IPAS SUBJECTS AT SDS IT AL-YUNUSI RIMBO ULU TEBO

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Abstract

This research is motivated by the low critical thinking skills of grade III students in the science subject at SDS IT Al-Yunusi, which can be seen from the low ability of students to observe, ask, explain reasons, and draw logical conclusions in the learning process. This condition is related to learning that still tends to be teacher-centered, so that students have not gained an active, contextual, and meaningful learning experience. This research aims to describe the application of Project-Based Learning (PjBL), analyze the improvement of students' critical thinking skills, and identify supporting factors and obstacles to its implementation in class III science learning. The method used is the Kemmis and McTaggart model of Classroom Action Research, which is carried out in two cycles through the planning, action, observation, and reflection stages. Data is collected through tests, observations, and documentation, then analyzed using simple qualitative and quantitative descriptive methods. The results showed that the application of PjBL was able to improve students' critical thinking skills, which can be seen from the increase in active questioning, the ability to give reasons, group cooperation, and the courage to present project results. Thus, PjBL has proven to be effective in learning IPAS to strengthen the critical thinking skills of elementary school students

Keywords: Critical thinking; IPAS; Project-Based Learning



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INTRODUCTION

Critical thinking skills are an essential competency that must be developed since elementary education because they are the foundation for students to understand information rationally, assess evidence, and make appropriate decisions in problem solving. In science learning, this ability is very important because the material requires students not only to memorize concepts, but also to connect facts, interpret symptoms, and draw conclusions logically (Swistiyawati & Indrayani, 2024). In fact, many elementary school students are still at the stage of concrete thinking, so they need learning strategies that provide space for exploration, interaction, and reasoning. This condition shows that strengthening critical thinking cannot depend on lecture methods alone, but requires an active and meaningful learning experience. Therefore, a learning model that is able to foster a systematic high-level thinking process from an early age is needed.

At the elementary school level, low critical thinking skills are still a prominent problem in various learning areas, including IPAS (Andriani & Sari, 2024). The results of initial observations in grade III of SDS IT Al-Yunusi show that students tend to be passive, less able to explain reasons, and are not used to expressing opinions based on evidence. This situation is in line with the general trend that teacher-centered learning makes students receive information in one direction without being trained to analyze and compare ideas. In the context of IPAS, weak habits of questioning, analyzing, and concluding make it difficult for students to relate material to the real environment (Jioniza et.al., 2024). Thus, the main problem is not only in the mastery of the material, but also in the learning process that has not sufficiently encouraged the emergence of active and continuous critical reasoning.

One of the approaches that is considered relevant to overcome these problems is Project-Based Learning (PjBL). This model places students as active subjects who learn through planning, implementing, and presenting projects related to real problems around them (Jusita, 2019). Pedagogically, PjBL provides opportunities for students to observe, discuss, consider alternatives, and produce products that reflect their understanding of the material. (Alviona et.al., 2026) In learning science in Grade III, Landscape and explaining the results of the project can trigger students to think more carefully and argumentatively (Umbunan et.al., 2025). Therefore, PjBL is seen as in line with the need for the development of critical thinking skills in elementary school students, especially when the material is associated with concrete experiences that are close to their lives.

Empirically, various studies show that project-based learning has the potential to improve students' critical thinking skills, creativity, and learning participation. (Sembiring, 2025) However, most of the previous research was conducted at a higher level or on subjects that did not always focus on strengthening spatial and analytical reasoning, such as IPAS grade III (Nadila & Lestari, 2025). In addition, the implementation of PjBL in the context of elementary schools still often faces obstacles in project planning, collaborative work habits, and limited learning time (Simanjuntak et.al., 2025). This fact shows that although PjBL has a strong theoretical foundation, its application to grade III students requires a more contextual, simple, and developmental design according to the characteristics of children's development. Therefore, research in the context of SDS IT Al-Yunusi is important to show how PjBL can be effectively adapted in science learning.

Based on these conditions, this research is directed to strengthen the practice of social studies learning, which not only emphasizes the understanding of concepts but also the development of critical reasoning of grade III students through project activities. The focus of this research lies in the application of PjBL in science learning at SDS IT Al-Yunusi to encourage students to think more analytically, be able to reason, and draw conclusions based on real learning experiences. Thus, this research is expected to make a theoretical contribution to the development of science learning in elementary schools as well as a practical contribution

for teachers in choosing a more active, contextual, and skill-strengthening learning model for the 21st century.

The research gap lies in the limited number of studies that specifically test the application of PjBL to improve the critical thinking skills of grade III students in science subjects in integrated Islamic elementary schools. Some of the existing research tends to focus on improving general learning outcomes, in higher grades, or on other subjects that have different content characteristics (Erdiana, 2024). On the other hand, science learning in grade III requires strategies that are able to bridge students' concrete experiences with the ability to reason, observe, and conclude simply. (Ignasia & Haryanto, 2025) There have not been many studies that place projects as a systematic means to train critical thinking indicators at the developmental stage of early elementary school children (Aziz et.al., 2026). Therefore, this study is here to fill this empty space by presenting the implementation of PjBL that is contextual, measurable, and in accordance with the needs of social studies learning at SDS IT Al-Yunusi.

The novelty of this research lies in the application of PjBL in science learning in grade III, with the main focus on improving critical thinking skills through project activities that are close to students' lives, especially on Landscape materials. This research not only assesses the final product of learning, but also emphasizes the students' thinking process during planning, discussing, creating, and presenting projects. This approach allows for a more complete measurement of the development of critical thinking in elementary school students. In addition, the context of SDS IT Al-Yunusi provides a distinctive local dimension, because learning is designed to be in harmony with the character of students, school culture, and contextual learning needs. Thus, the novelty of this research is not only in the use of the PjBL model, but in the adjustment of the project syntax, material context, and assessment orientation that directly targets the strengthening of critical thinking.

Based on this background, this study aims to describe the application of project-based learning in class III science subjects, analyze the improvement of students' critical thinking skills after learning activities, and identify obstacles and supporters during the implementation of PjBL at SDS IT Al-Yunusi. The formulation of this research problem includes three things, namely how the results of students' critical thinking skills in science subjects before and after the implementation of PjBL, what the steps are to apply the PjBL model in class III science learning, and what factors support and hinder the improvement of critical thinking through the model. With the purpose and formulation of this problem, the research is expected to produce a systematic, empirical, and relevant picture for the development of science learning that is more meaningful and responsive to the needs of elementary school students.

RESEARCH METHOD

This study uses the Classroom Action Research method because its main goal is to improve the quality of learning while improving students' critical thinking skills through the application of the Project-Based Learning (PjBL) model (Syarifudin et.al., 2024). The selection of PTK is based on the practical need to present actions that are directly applied in the classroom, then systematically evaluated based on the results (Darmayanti et al., 2024). This model is relevant because the problems studied arise in the real learning process, namely the low ability of grade III students to analyze, reason, and draw conclusions in science subjects. Through PTK, teachers can design learning actions that are in accordance with the characteristics of students and the school context. Thus, this method is appropriately used to produce measurable, reflective, and sustainable learning improvements.

The research subject was a Grade III student of SDS IT Al-Yunusi who experienced difficulties in critical thinking in science learning, especially materials related to Landscapes. The selection of this subject was based on the results of initial observations that showed that students tended to be passive, less able to explain reasons, and were not used to expressing

opinions logically. Research data were collected through observation, interviews, documentation, and critical thinking skills tests. Observations were used to assess the activities of teachers and students during the PjBL process. The test was used to measure the development of critical thinking skills before and after the Action (Kristiyanto, 2020). Evidence from these various data collection techniques allowed researchers to obtain a more complete and valid picture of changes in student learning behavior. Therefore, research subjects and instruments were chosen in a relevant manner so that the research results truly reflect the actual learning conditions.

The research procedure was carried out through two cycles, and each cycle included the planning, action implementation, observation, and reflection stages. In the planning stage, the researcher developed a project-based learning tool that was tailored to the objectives of IPAS class III. In the implementation stage, students were allowed to observe, discuss, design projects, create products, and present the results collaboratively. The observation stage was used to record student involvement, the accuracy of learning steps, and critical thinking indicators that emerged during the process (Sari et.al., 2017). Furthermore, reflection was carried out to assess the weaknesses of actions in the previous cycle and improve learning in the next cycle. This flow is supported by learning outcome assessments and observation sheets that are analyzed in a qualitative and quantitative manner that is simple qualitative. With this procedure, this study is expected to be able to show the empirical effectiveness of PjBL in improving students' critical thinking skills.

RESULTS AND DISCUSSION

The formulation of the first problem shows that the application of Project-Based Learning in the learning of Landscape Science material contributes significantly to the improvement of critical thinking skills of grade III students. Before the action was taken, students tended to be passive, rarely asked questions, were not able to convey reasons in sequence, and had difficulty concluding the observation results. After the action was carried out through two cycles, there were changes in the activeness of questioning, the ability to discuss, the courage to present results, and the accuracy of explaining the project's findings. These changes indicate that a concrete, collaborative, and contextual learning experience facilitates students in observing, interpreting, comparing, and then inferring information more reflectively. Thus, the results of the study confirm that the PjBL model is effective in improving critical thinking indicators, while strengthening the connection between the research objectives, learning problems, and theoretical frameworks used. These findings are in line with the introduction that emphasizes the need for active, contextual, relevant, and meaningful learning.

Table 1. Results of the Study Confirm that the Pjbl Model

Indicator	Pre-cycle (%)	Cycle I (%)	Cycle II (%)	Meaning of Discussion
Observing information/objects	42	68	86	The improvement shows that PjBL helps students observe IPAS objects and phenomena more thoroughly through concrete learning experiences.
Ask to find out	38	64	84	The increase in this indicator confirms the growing curiosity and academic courage of students during project-based learning.
Explaining the	40	66	85	This change shows that

results of observations				students are increasingly able to communicate findings in a coherent and relevant way to the Landscape material.
Giving a simple reason	35	61	82	Improved reasoning ability shows that learning no longer stops at short answers, but moves to simple, logical reasoning.
Draw a simple conclusion	37	63	83	The increase in the conclusion indicator shows a better connection between the results of observations, discussions, and knowledge built by students.
Average achievement	38	64	84	In general, this pattern is in sync with the findings that PjBL is effective in improving the critical thinking skills of grade III students in science learning.

The second problem formulation emphasizes that the implementation of Project-Based Learning is carried out through the stages of planning, implementation, presentation, observation, and reflection that are systematically arranged according to the design of the Class Action Research. In the planning stage, the teacher prepares learning tools, sets goals, selects landscape materials, and designs simple projects that are in accordance with the developmental characteristics of grade III students. In the implementation stage, students observe objects, discuss, formulate, make products, and present the results of work collaboratively. Observations during the action process show that learning activities become more lively, students are more courageous to ask questions, and the ability to explain the relationship between concepts and real experiences is developing. Therefore, the steps of PjBL in this study are proven to be in line with the method, the theory of constructivism, and the goal of improving critical thinking skills. The regularity of the syntax shows that learning actions do not take place randomly, but are directed, adaptive, and continuous.

Table 2. The Regularity of the Syntax Shows that Learning Actions

Indicator	Pre-cycle (%)	Cycle I (%)	Cycle II (%)	Meaning of Discussion
Action planning readiness	50	78	90	This figure shows that project-based learning planning is becoming more mature and more aligned to improve critical thinking.
Implementation of project activities	40	70	88	This improvement indicates that the PjBL syntax is increasingly effective, from observation to product creation.
Quality of discussion and collaboration	42	68	86	The increase shows that interaction between students has evolved from passive to more participatory and constructive.

Presentation of project results	35	62	84	This change shows that presentations serve as a means of practicing communication, argumentation, and academic courage for students.
Quality of reflection and improvement	45	72	89	The improvement in the reflection stage strengthens the suitability of this study with the cyclical character of PTK, which demands evaluation and improvement of actions.
Average implementation of PjBL	42	70	87	Overall, this data supports the conclusion that the implementation of PjBL is systematic, gradual, and consistent with the research method.

The formulation of the third problem shows that the success of improving critical thinking skills through Project-Based Learning is influenced by a combination of supporting factors and inhibiting factors during the learning process. The main supporting factors include the active involvement of students in the project, the role of the teacher as a communicative facilitator, and the use of social science materials that are contextual and close to daily life. These conditions encourage students to be more enthusiastic, make concepts easier to understand, and be more courageous in putting forward reasons during discussions and presentations. On the other hand, the obstacles found include limited learning time, variations in confidence between students, and uneven group cooperation. Thus, the effectiveness of PjBL in this study does not stand alone, but is highly dependent on the quality of classroom management, the intensity of teacher mentoring, and the accuracy of project adjustments to student development needs. This means that the success of actions requires pedagogical, social, and technical support.

Table 3. The Effectiveness of PjBL in this Study

Indicator	Pre-cycle (%)	Cycle I (%)	Cycle II (%)	Meaning of Discussion
Active student involvement	41	69	87	This increase shows that active student participation is the main supporting factor in the development of critical thinking.
Teacher facilitation	58	80	92	The increasing numbers confirm the importance of the teacher's role as a facilitator and guide during the project.
Contextuality of IPAS material	60	82	91	This improvement shows that material that is close to students' lives makes it easier to analyze, discuss, and draw conclusions.
Time management effectiveness	46	67	80	Despite the improvement, this indicator shows that time remains a challenge in the implementation of PjBL.

Student confidence	39	63	84	in the lower classes. This increase signifies that the courage to speak up grows as students engage in projects and presentations.
Equitable distribution of group cooperation	40	65	82	This change shows that collaboration between students is improving, although it still requires a proportionate role arrangement.
Average success factor of the action	47	71	86	In general, supporting factors are becoming more and more dominant so that the implementation of PjBL is more effective in increasing critical thinking.

Critical thinking skills are an important ability that allows students to analyze information, assess arguments, and make decisions based on logical reasons (Rendi et.al., 2024). In science learning in elementary school, this ability needs to be built early because the material requires not only memorization of concepts, but also understanding cause-and-effect relationships, observation of phenomena, and drawing appropriate conclusions. Critical thinking theory emphasizes that students need to be trained to question, compare, evaluate evidence, and formulate reasons sequentially in order to be able to understand problems in depth (Nuryadi et.al. 2026). Evidence from various educational studies shows that students who are accustomed to analyzing and reflecting have a better quality of understanding than students who only passively receive information. Thus, critical thinking is the main foundation in science learning because it supports the process of inquiry, problem-solving, and the formation of scientific attitudes that are in accordance with the goals of basic education.

Project-Based Learning is a learning model that places students as active subjects in building knowledge through meaningful and contextual project activities (Syarifudin et al., 2024). This model is relevant to use in class III science learning because it provides students with the opportunity to observe, plan, discuss, produce work, and present learning results collaboratively. Theoretically, PjBL is in line with constructivism because knowledge is not only transferred from teachers, but is built through direct experience and social interaction (Ahmad et.al., 2025). Empirical evidence shows that project-based learning can increase student engagement, strengthen critical thinking skills, and encourage the courage to express opinions and give reasons. Therefore, PjBL is very relevant as a theoretical foundation in this study because it is in line with the character of the IPAS material, the developmental needs of grade III students, and the main goal of the research, which is to improve critical thinking skills through active and meaningful learning experiences.

The formulation of the first problem shows that the application of project-based learning in social studies subjects is closely related to the improvement of critical thinking skills of Grade III students. This is important because critical thinking does not grow spontaneously, but rather through learning experiences that provide space for students to actively observe, reason, and evaluate information. In the context of learning at SDS IT Al-Yunusi, the PjBL model encourages students to engage directly in meaningful learning activities so that they not only receive the material, but also process it independently (Nurazizah et.al., 2025). Evidence from the results shows that students begin to be more courageous in asking, answering, and interpreting information more thoroughly after participating in project-based learning. Thus, the application of PjBL has proven to be relevant to addressing the need to strengthen critical thinking in science learning in grade III.

The improvement of critical thinking skills can also be seen from changes in student learning behavior during the learning process. In the early stages, students tend to be passive, wait for the teacher's direction, and are not able to provide a strong reason for the answers delivered (Waode, 2023). This condition shows that students' analytical abilities are still limited and require stimulation through a more active learning model. After the implementation of PjBL, students have the opportunity to observe objects, discuss in groups, and compile work results based on their own findings. This evidence confirms that a concrete and collaborative learning experience can strengthen students' ability to identify problems, compare information, and draw conclusions. Therefore, project-based learning has a real contribution to developing critical thinking habits gradually and in a directed manner.

The connection between learning projects and critical thinking is seen in students' ability to relate IPAS concepts to everyday experiences. Landscapes become easier to understand when students are involved in the activities of creating, presenting, and explaining the results of the project (Barus et.al., 2022). The process requires students to not only remember information, but also to assess, choose, and give reasons for the decisions they make. Evidence in the field shows that students understand the material more easily when learning is packaged in the form of project tasks that are close to their lives. Thus, PjBL serves as a bridge between academic concepts and environmental realities, so that learning outcomes do not stop at theoretical understanding, but rather develop into more meaningful reasoning skills.

From a pedagogical perspective, the results of this study confirm that student-centered learning is more effective in forming critical thinking skills than lecture-dominated learning (Yunita & Tafonao, 2025). The main reason is that students gain the opportunity to build their own knowledge through direct experience, social interaction, and reflection on the results of their work. These findings are in line with the principle that critical thinking develops when students are given real problems that must be analyzed and solved through a systematic process. Evidence of changes in the learning cycle shows that students become more active, more confident, and better able to articulate logical reasons. Therefore, the application of PjBL in IPAS learning not only improves learning activities, but also improves the quality of students' overall thinking.

Overall, the results of the discussion of the first problem formulation show that the project-based learning model has a positive influence on the critical thinking skills of grade III students at SDS IT Al-Yunusi. The improvement can be seen in the students' ability to ask questions, discuss, explain reasons, and conclude learning outcomes in a more orderly manner. This success is supported by a learning design that provides space for students to learn through experience, cooperation, and problem-solving. The evidence from the results of the action corroborates that PjBL is suitable for use in elementary school science learning because it is able to present an active, contextual, and challenging learning process for students. Thus, the first problem formulation can be answered that the application of PjBL is effective in improving students' critical thinking skills.

The implementation of project-based learning in science subjects in grade III of SDS IT Al-Yunusi begins with the planning stage, which is systematically arranged to be in line with improving critical thinking skills. This stage is important because PjBL requires a clear design, both in the selection of materials, project determination, and the arrangement of student learning activities (Wahyudi et al., 2018). The main reason is that grade III students still need structured direction so that they can participate in learning independently but still be directed. Evidence in implementation shows that teachers prepare learning tools, determine the theme of the Landscape, and design simple but meaningful project assignments. Thus, the first step of PjBL is an important foundation to ensure that the learning process takes place effectively and in accordance with the characteristics of elementary school students.

The next stage is the implementation of projects that place students at the center of learning activities. In this stage, students are allowed to observe objects, discuss findings, and

design products according to the teacher's direction (Arini et.al., 2024). This is relevant because social studies learning is not sufficiently understood through verbal explanations, but needs hands-on experience so that students can build their own understanding. Evidence in the field shows that students are involved in group activities, compile information, and produce works related to Landscape materials. This active involvement shows that PjBL is able to create a more lively and participatory learning atmosphere. Therefore, the project implementation stage is at the heart of the implementation of this model because it provides a concrete, collaborative, and meaningful learning experience for students.

During the learning process, students show changes in the way they observe and process information. This condition is important because critical thinking skills develop when students are directed to compare facts, assess information, and formulate reasons logically (Wulandari et.al., 2015). The reason is that direct experience through projects makes it easier for students to understand the relationship between the material and the reality around it. Evidence from the observation results shows that students begin to actively ask questions, discuss answers, and improve the results of work based on the input of friends and teachers. Thus, PjBL not only serves as a method of delivering material, but also as a means to train the high-level thinking process needed in learning science.

The presentation stage of project results also makes an important contribution to the development of students' critical thinking skills. At this stage, students are required to explain the results of their work, account for the choices made, and respond to questions from teachers and peers (Hanaris, 2023). This activity is relevant because critical thinking is not only seen in the ability to find answers, but also in the ability to communicate reasons in a coherent and convincing manner. Evidence of implementation shows that students who were previously passive began to be more confident when presenting the project results in front of the class. They also showed a better ability to answer simple questions related to their work process. Therefore, the presentation of project results is an important part of PjBL learning because it trains students' courage, communication, and reasoning at the same time.

Reflection carried out after learning shows that the application of PjBL has a positive impact on student learning engagement and independence. This stage is important because reflection allows teachers to evaluate the strengths and weaknesses of the learning process for improvement in the next cycle. Pedagogically, reflection helps students realize what has been learned, what still needs to be improved, and how they can improve their work outcomes in the future (Lestari, 2024). Evidence from the research process shows that students become more disciplined, more cooperative, and more open to the teacher's direction after participating in project-based learning. Thus, reflection is not only the conclusion of learning activities, but also a means of forming metacognitive attitudes that support the development of critical thinking.

Overall, the steps of implementing the PjBL model in the learning of social studies in grade III at SDS IT Al-Yunusi took place through interrelated stages of planning, implementation, presentation, and reflection. Each stage has an important role in building an active, contextual, and challenging learning experience for students to think more critically. The main reason for the success of this implementation is the compatibility between the learning design, student characteristics, and the objectives of the social science material that are close to daily life. The evidence of action shows that students can follow the learning process better when allowed to work in real life through the project. Therefore, the second problem formulation can be answered that the PjBL steps are implemented gradually and systematically so as to support the improvement of students' critical thinking skills.

The main supporting factor in improving students' critical thinking skills through project-based learning is students' active involvement in the learning process. This is important because critical thinking cannot develop if students only become passive recipients of information. In science learning in Grade III, the activities of observing, discussing, designing

projects, and presenting results provide space for students to build knowledge independently (Ansya, 2023). Evidence from the implementation shows that students are more enthusiastic when given tasks that are close to their lives, such as landscape materials. This condition shows that active involvement is a strong basis for the development of analytical and reflective skills. Thus, student participation in PjBL is a very significant supporting factor in the success of this research.

The next supporting factor is the role of teachers in facilitating learning in a directed and communicative manner. This role is important because grade III students still need guidance in order to follow the project stages well. The main reason is that teachers not only function as material presenters, but also as directors, companions, and evaluators of the learning process. Evidence of implementation shows that teachers prepare learning tools, give direction at each stage of the project, and help students when they have difficulties in compiling work results. The presence of teachers who actively guide makes students more confident to try, ask questions, and complete assignments. Therefore, teachers' pedagogical competence is one of the determinants of the success of the implementation of PjBL in improving critical thinking skills.

Another support that strengthens learning success is the use of IPAS materials that are contextual and close to students' experiences. This factor is relevant because students are more likely to think critically when dealing with problems that they can see and experience firsthand. In this study, the theme of Landscapes provides students with opportunities to connect concepts with everyday reality. Evidence shows that students understand tasks more easily when learning is associated with the school environment and activities they are familiar with (Pepilina et al., 2025). This situation reinforces the understanding that contextual learning makes it easier for students to analyze, compare information, and draw conclusions. Thus, the suitability of the material with real life is an important supporting factor in the optimization of PjBL.

In addition to supporting factors, some aspects hinder the process of developing critical thinking through PjBL, namely limited learning time. This obstacle is important because the project-based model requires quite long stages from planning to presentation of results (Ulya & Sukmawati, 2023). The main reason is that grade III students need more time to understand instructions, work together, and complete project products. Evidence in the field shows that some activities must be adjusted to the allocation of learning time so that all stages can be carried out effectively. This situation indicates that time management is a real challenge in the implementation of PjBL in elementary schools. Therefore, time constraints can be an obstacle if teachers do not design projects in a simple, measurable, and realistic way.

Another obstacle that arises is that there are still students who lack confidence and are slow to express their opinions (Haniyah et.al., 2025). This condition is relevant because critical thinking requires the courage to ask, assess, and express reasons openly. At the beginning of learning, some students are still waiting for the teacher's direction and are not used to taking the initiative in groups. Observational evidence shows that students who have higher abilities tend to be more active, while other students are still passive in discussions. This difference shows that critical thinking skills in Grade III are not evenly distributed, so they require more intensive assistance. Thus, low confidence and passive learning habits are obstacles that need to be overcome through habituation, motivation, and strengthening collaborative activities.

The next inhibiting factor is related to the ability to work together in a group that is not fully optimal. This is important because PjBL requires students to share tasks, formulate ideas, and complete projects together (Darel, 2024). The reason for this obstacle is the difference in character, activeness, and learning speed between students in a group. Evidence of implementation shows that some groups are still dominated by more active students, while other members tend to participate without a balanced contribution. This situation can affect the quality of project results while hindering the equitable distribution of critical thinking

development. Therefore, teachers need to provide a more proportional group arrangement and ensure that each student has a clear role in project activities.

Overall, the formulation of the third problem shows that the success of PjBL in improving critical thinking skills is influenced by interrelated supporting and inhibiting factors. Supporting factors include active student involvement, facilitating teacher roles, and contextual IPAS materials, while inhibiting factors include time constraints, low confidence, and suboptimal group cooperation (Sopiatuturida et al., 2025). Research evidence confirms that supporting factors can strengthen critical thinking processes, while barriers need to be managed through more adaptive learning planning. Thus, the success of the implementation of PjBL is determined not only by the model, but also by teacher readiness, student characteristics, and effective classroom management. The third problem formulation can be answered that an increase in critical thinking occurs when supporting factors are more dominant than obstacles.

The application of project-based learning in social studies subjects contributes significantly to the improvement of critical thinking skills of Grade III students. The main point of this analysis is that change occurs not solely because of the material taught, but because the learning structure provides space for students to observe, question, discuss, and present results. Critical thinking in elementary school-age children develops more effectively when they are faced with concrete tasks that require simple but directed reasoning. The study shows that students become more active, more courageous in expressing opinions, and are better able to give reasons after participating in the PjBL series. This model is worthy of being seen as a relevant learning strategy to strengthen critical thinking skills while improving the quality of learning participation in IPAS.

The success of PjBL is largely determined by the suitability of the learning design, student characteristics, and classroom management by the teacher. The salient point is that PjBL does not work automatically, but requires careful planning, adequate time, and consistent guidance. Grade III students are still at a developmental stage that requires operational direction in order to carry out the project effectively. When teachers organize learning steps systematically and use materials that are close to students' lives, student engagement and the quality of answers improve. This study shows that the success of improving critical thinking through PjBL occurs when the learning process is designed in a contextual, gradual, and responsive manner to students' learning needs.

CONCLUSION

Project-Based Learning in the learning of IPAS Landscape material in Grade III of SDS IT Al-Yunusi is effective in improving students' critical thinking skills gradually and measurably through two cycles of Class Action Research. The answer to the first question shows that the improvement is seen in the students' courage to ask questions, the ability to explain the results of observations, the accuracy of giving reasons, and the ability to draw simple conclusions based on concrete learning experiences. The answer to the second question shows that the success of the action is supported by the systematic implementation of PjBL measures, starting from planning, project implementation, observation, presentation of results, to reflection for learning improvement in the next cycle. The answer to the third question emphasizes that the active involvement of students, the role of the teacher as a facilitator, and the use of contextual materials are the main supporting factors, while time constraints, uneven confidence, and suboptimal group cooperation are the inhibiting factors that need to be managed pedagogically. Thus, this study shows that PjBL is not only theoretically relevant to constructivist approaches and critical thinking concepts, but also practically effective for building active, meaningful, collaborative, and harmonious social studies learning that is in harmony with the developmental needs of elementary school students.

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