INCREASING ACTIVITY AND PRACTICAL SKILLS THROUGH THE PROJECT BASED LEARNING MODEL

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ABSTRACT

This research aims to explore increasing activeness and practical skills through the application of the Project Based Learning (PjBL) learning model. The research method used is qualitative with a descriptive analysis approach, with a focus on literature review. This research will explore literature related to the concept and implementation of PjBL in an educational context, as well as evaluate its impact on students' activeness in learning and development of practical skills. Through descriptive analysis, this research will examine various empirical studies, theories, and conceptual frameworks that support the effectiveness of PjBL in increasing students' active participation and development of practical skills. The focus of the research will also highlight aspects such as project management, collaboration between students, application of technology, as well as the role of teachers and the learning environment in supporting the implementation of PjBL. The results of this research are expected to provide a deeper understanding of the potential of PjBL in increasing student activity and developing practical skills, as well as providing practical guidance for educators to implement learning models that suit their respective contextual needs. It is hoped that the conclusions of this research can provide a significant contribution to the development of curriculum and learning practices that are more oriented towards student empowerment and contextual problem solving.

Keywords: *Project Based Learning (PjBL), Student activity, Practical skills*

INTRODUCTION

The problem of low student involvement in conventional learning and its impact on interest and motivation to learn is a complex issue in the world of education. According to Garcia, M., & Lee, S. (2020), low student involvement in conventional learning can result in decreased student interest in learning and motivation. Factors such as lack of relevance of subject matter to students' lives, lack of interaction between teachers and students, and lack of variety in teaching methods also contribute to this problem.

Some schools experience challenges in overcoming low student engagement. A report from the National Education Association (NEA) in 2021 shows that a lack of innovation in the delivery of learning materials and a lack of understanding of student learning styles are factors that play a role in this problem. Apart from that, a school environment that does not support student participation and a lack of motivation from educators can also worsen this situation.

Lack of student involvement in the learning process when applying conventional models is an issue that is often faced in various educational institutions. In the conventional model, the teacher's role tends to be dominant in conveying lesson material, while students are more passive as recipients of information. This can result in various negative impacts. First, students tend to lose interest and motivation in learning due to their lack of involvement in the learning process. In a study conducted by Richards and Richardson (2019), they highlighted that conventional models of learning tend to limit student participation, result in reduced intrinsic motivation, and suppress the development of critical skills. This is supported by other findings from a study by Jones et al. (2020), which shows that a lack of student engagement can lead to learning dissatisfaction and decreased academic achievement.

Lack of student engagement can also hinder the development of critical skills and creativity. Conventional models tend to emphasize memorization and regurgitation of information, not on understanding concepts and applying knowledge in real contexts. Research conducted by the Organization for Economic Co-operation and Development (OECD) found that students who are actively involved in learning tend to have better critical thinking and creativity skills. This negative impact is also reinforced by research by Lee and Song (2021), which found that the lack of interaction in conventional learning can hinder the development of students' communication and collaboration skills. Similar results were also found in a recent study by Wang et al. (2023), who highlight that less interactive learning models can create less inclusive classroom environments and strengthen disparities between students.

Students' lack of ability to develop practical skills during the learning process is a critical issue that can have a serious impact on their independence and creativity in the future. Practical skills, such as the ability to solve problems, communicate effectively, and work collaboratively, are an integral part of students' preparation to face the demands of an increasingly complex world of work. However, too often the learning process only focuses on providing learning material, without providing sufficient opportunities for students to apply this knowledge in a practical context.

One of the main factors that influences the lack of development of students' practical skills is the lack of accuracy in implementing appropriate learning models.

Many learning models have not been able to integrate practical aspects into their learning effectively. For example, a learning model that is too teacher-centered and does not provide enough space for students to actively participate in the learning process. As a result, students tend to become passive and only receive information from the teacher without being truly involved in the learning process.

Apart from that, teachers' lack of classroom mastery also becomes an obstacle in developing students' practical skills. A teacher who is not able to manage the class well will find it difficult to create a learning environment that supports the development of practical skills. A teacher's inability to create an atmosphere that facilitates discussion, collaboration, and experimentation can hinder students' ability to learn actively and engage in relevant learning practices.

The impact of minimal development of practical skills is not only limited to individual skills, but also has the potential to affect students' overall academic achievement. According to Blumenfeld, PC, & Tsur, E. (2020), strong practice skills enable students to understand the material in depth and apply it in real situations, which in turn can improve their academic performance. However, when students are only used to a passive learning approach oriented towards absorbing information, they may not be able to face more complex challenges in exams or academic evaluations.

Therefore, there needs to be a change in the learning approach that is more oriented towards developing students' practical skills. Teachers need to be trained to use learning models that allow students to be actively involved in learning and apply knowledge in practical contexts. In addition, teacher education must also strengthen teachers' skills in managing the classroom effectively, thereby creating a supportive environment for the development of students' practical skills. In this way, students will be better prepared to face future challenges and achieve better achievements in various aspects of their lives.

This is supported by various studies that have been conducted to explore more deeply the impact of the lack of development of students' practical skills in the learning process. These studies provide valuable insight into how students' lack of engagement in learning practices can affect their academic outcomes as well as their readiness to face future challenges.

First, research that highlights the influence of active learning on student

performance in STEM (Science, Technology, Engineering, and Mathematics) education. Research results show that students who engage in active learning, such as group discussions, practical experiments, and problem-based projects, perform better in STEM subjects compared to students who follow more traditional learning approaches (Emmer, ET, & Stough, LM (2024). Second, this research explores the relationship between classroom management by teachers and student involvement in learning. Research findings show that teachers who have good classroom management skills tend to create a learning environment that supports student involvement learning and have a tendency to develop better practical skills (Barron, BJ, & Darling-Hammond, L. (2024). Third, this research aims to evaluate the impact of project-based learning on students' creativity and problem solving skills. The results show that students who are involved in project-based learning have higher levels of creativity and are more adept at solving complex problems compared to students involved in conventional learning (Llewellyn, D. 2019). Fourth, this study investigates the effects of research-based learning on student engagement and their academic achievement. The results show that research-based learning drives higher student engagement and improves their academic outcomes, especially in science and mathematics subjects. (Wagner, T. (2020).

From the four studies above, it can be concluded that engaging students in active and relevant learning practices is very important to improve their practical skills, engagement in learning, and their academic achievement. Therefore, it is important for educators to adopt a learning approach that allows students to actively participate in the learning process and apply their knowledge in practical contexts. In addition, teachers must also be equipped with effective classroom management skills in order to create a learning environment that supports student engagement and the development of their practical skills.

The gap in this research is the lack of a comprehensive understanding of the influence of the minimal development of students' practical skills in the learning process on their academic results and their readiness to face future demands. Although there has been a number of studies conducted on this topic, there are still several aspects that need to be better understood and explored. One of the main gaps is the lack of research that specifically explores the relationship between students' development of practical skills and their engagement in the learning process, and

how this influences their academic performance. In addition, there is a gap in understanding of how factors such as the learning models implemented by teachers and classroom management skills can influence the development of students' practical skills.

The novelty of this research lies in a holistic and integrated approach in understanding the influence of the lack of development of students' practical skills in the learning process. Previous research has tended to explore certain aspects of this phenomenon, such as the influence of active learning or project-based learning on students' practical skills. However, this research will try to unify various factors that influence the development of students' practical skills, including the learning models applied by teachers, classroom management skills, and student involvement in learning. Thus, it is hoped that this research can provide a more holistic understanding of how these factors interact and influence each other in shaping students' practical skills. This research can also explore the practical implications of its findings in the context of educational policy development and teaching practices in schools. By better understanding how different learning models, classroom management skills, and student engagement can influence the development of students' practical skills, educators and policy makers can take concrete steps to improve the quality of learning in schools. This can include training teachers in effective learning models, developing curricula that emphasize active learning and student engagement, and building supportive learning environments in schools. Thus, this research has the potential to make a significant contribution to improving the quality of education at the school level.

MATERIALS AND METHODS

This research aims to explore the use of the Project Based Learning (PjBL) Learning Model in increasing students' activeness and practical skills in an educational context. The method used is qualitative with a focus on extracting literature related to the concept and implementation of PjBL as well as evaluating its impact on student activity in learning and developing practical skills. The initial step in this research was to review various literature sources which include empirical studies, theories and conceptual frameworks relevant to PjBL. The literature search process will involve a comprehensive search through academic databases such as PubMed, Google Scholar, and Scopus. The keywords used will

be related to the PjBL concept, student activity, and practical skills in an educational context. Relevant articles will be selected based on predetermined inclusion criteria, such as relevance to the research topic, year of publication, and methodological quality.

After identifying relevant literature, an in-depth analysis of theories, conceptual frameworks and empirical findings related to PjBL will be carried out. The data collected will be analyzed descriptively to identify patterns, trends and conclusions that emerge from the literature reviewed.

RESULTS AND DISCUSSION

RESULTS

Increasing Student Activity

Increasing student activity is an indicator of success in implementing an effective learning model. One aspect that is an important marker is a significant increase in student participation during the learning process (Hassan & Othman, 2020). With the emergence of more active participation, students become more involved in discussion activities, asking questions, and collaborating with fellow students and teachers in order to complete the given project (Tomas, 2019). This shows that students do not only receive information passively, but are also actively involved in the learning process, which in turn can increase their understanding of the subject matter.

Apart from that, the level of student involvement is also key in assessing the effectiveness of the learning model implemented. In this context, projects play an important role in providing a relevant and challenging context for students (Chan & Looi, 2022). Well-designed projects provide opportunities for students to relate the concepts learned to real-world situations, so that students feel more motivated to be actively involved in the learning process. By providing a relevant context, students become more enthusiastic and feel that what they learn has direct application in their lives.

Increased student participation may also be a reflection of changes in teachers' approaches to learning (Karimi et al., 2023). Teachers who are able to create an inclusive and supportive learning environment will encourage students to participate more actively. Through the guidance and support provided by teachers,

students feel more confident to contribute to class discussions, ask questions, and collaborate with their peers. Thus, the teacher's role in creating a supportive atmosphere is crucial in increasing student activity during the learning process.

Increasing student activity can also be influenced by adjustments to learning methods and strategies carried out by teachers (Hung et al., 2021). Learning models such as Project Based Learning (PBL) offer an approach that allows students to be actively involved in content-based projects. Through these projects, students have the opportunity to explore topics in depth and apply the knowledge they learn in practical situations. As a result, students become more engaged in learning because they see the immediate value of what they learn in a context that is relevant to everyday life.

Collaborative learning can also increase student activity (Chen et al., 2020). By working together in groups or teams, students have the opportunity to share ideas, solve problems together, and expand their understanding through discussion and reflection together. In a collaborative environment like this, students feel more motivated to participate actively because they feel supported by their peers in the learning process. Thus, increasing student activity is a significant result of implementing an effective learning model (Tomas, 2019). Through more active participation, students have the opportunity to develop a deeper understanding of the subject matter, improve their social skills, and feel deeper involvement in the learning process. Therefore, efforts to increase student activity need to continue to be encouraged and supported by all stakeholders in education, from teachers, students, to the school and parents.

b. Improving Students' Practical Skills in the Learning Process in Implementing Project Based Learning

Improving students' practical skills is an important aspect in evaluating the effectiveness of a learning model. One of the main indicators in this case is the student's ability to apply the concepts learned in practical situations. Learning models that integrate theoretical concepts with practical applications can significantly improve students' ability to apply their knowledge in real-life contexts. This is reflected in improvements in practical skills such as problem solving, analysis and synthesis, which are key components of the practical abilities measured in learning.

This model provides a unique opportunity for students to develop their creative and innovative skills. In a project environment, students are given the challenge of completing complex tasks that require creative solutions. Through this process, they learn to think outside the box, explore different approaches, and create innovative solutions to problems at hand. The research shows that well-designed projects can serve as a catalyst for the development of students' creative and innovative skills.

Learning models that emphasize practical practice can also broaden students' insight into the real-world applications of the academic concepts studied. Project-based learning helps students to understand the relationship between theory and practice in a particular discipline. By viewing concepts in the context of practical situations, students can gain a deeper and more meaningful understanding of the subject matter.

Through project-based learning, students also have the opportunity to develop the time management, teamwork, and communication skills necessary to complete complex assignments. Collaboration on such projects allows students to learn how to work effectively in teams, divide tasks, and communicate efficiently with their peers. It also creates opportunities for students to practice leadership and negotiation skills, which are important aspects of practical skills desired in the world of work.

Improving students' practical skills through project-based learning models is a significant outcome in an educational context. Through applying concepts in practical situations, developing creative and innovative skills, and collaborating in completing complex tasks, students can gain skills that are relevant and valuable for life outside the classroom (Sullivan & Mazzotti, 2023). Therefore, it is important for educators to consider the important role of this learning model in helping students develop the practical skills necessary for future success.

The use of the Project Based Learning (PBL) model has been proven effective in increasing student activity and practical skills in the learning process. One indicator of the success of PBL is increased student interest in learning because projects provide a relevant and challenging context (Elliott & Quinn, 2019). In this context, well-designed projects can provide students with meaningful learning experiences and motivate them to be actively involved in the learning process. For

example, research by Elliott & Quinn shows that projects that are directly related to students' daily lives can increase students' intrinsic interest and motivation in learning.

The project being worked on also plays an important role in increasing students' intrinsic motivation Rodriguez, A. (2019). When students feel that they have an important role in the project and that the results of their work will have a real impact, they tend to be more motivated to study diligently to achieve meaningful results. This illustrates the importance of giving students the opportunity to design, manage, and execute their own projects, so that they feel they have full responsibility for the end result.

Projects that are oriented to the real world can also be a motivating factor for students to study more diligently Vanderlinde, R., & van Braak, J. (2020). In a learning environment that uses PBL, students not only gain theoretical knowledge, but also apply it in practical contexts that are relevant to the real world. Through these projects, students learn to face real challenges and solve complex problems, which require a great deal of perseverance and perseverance to achieve meaningful results.

Apart from the benefits for students' intrinsic motivation, the use of the PBL model also has a positive impact on developing practical skills Voss, R., & Gruber, H. (2019). In PBL-based projects, students are invited to develop practical skills such as problem solving, analysis, and synthesis. They learn to think critically, work together in teams, and communicate effectively in completing complex tasks. Research by Quinn & Elliott shows that students involved in PBL have better practical abilities compared to students who learn through conventional methods.

The use of the PBL model not only increases students' activeness in learning, but also helps them develop practical skills necessary for success in the real world. Therefore, this approach is worth considering by educators as a strategy to increase the effectiveness of learning in the classroom. By providing relevant context, increasing intrinsic motivation, and encouraging more persistent learning, PBL can provide meaningful and valuable learning experiences for students.

The use of the Project Based Learning (PBL) model has proven effective in developing high quality and beneficial projects for students. One indicator of PBL success is the student's ability to produce a high quality and useful final project

product (Robinson & Wang, 2020). These projects not only reflect a deep understanding of the course material, but also demonstrate students' ability to apply the concepts and skills they have learned. In this context, project results become a benchmark for the success of PBL implementation in learning.

Students involved in PBL have the opportunity to learn in depth about the topics they research through the project creation process (Wicaksono & Utomo, 2019). By applying the concepts learned to the projects they work on, students not only gain theoretical understanding, but also experience the practical application of the course material. Through this practical experience, students can better internalize these concepts and develop a deep understanding.

The quality of projects produced by students also reflects the level of success in applying the concepts and skills learned during the learning process (Utami & Wijaya, 2020). Quality projects show that students have succeeded in mastering the subject matter well and are able to apply their knowledge in creative and innovative ways. This shows that PBL is not only effective in increasing students' understanding, but also in developing critical thinking and problem solving skills. Emphasis is placed on developing students' skills in applying the concepts and skills learned to the projects they work on (Li & Wu, 2020). The project creation process requires students to think creatively, work together in teams, and overcome complex challenges. Through these experiences, students not only gain new knowledge, but also develop the skills necessary to succeed in the real world.

DISCUSSION

The Project Based Learning (PBL) approach has become closely related to the competency-based curriculum approach, which emphasizes the development of skills and attitudes in addition to just knowledge. PBL integrates knowledge with practical application in real situations, so that students not only understand concepts theoretically, but also learn how to apply them in relevant contexts. This makes PBL a method that is very suitable for a competency-based curriculum approach.

In PBL, students are faced with projects or problems that require them to explore knowledge, develop deep understanding, and apply it in situations that require problem solving. These projects often require teamwork, effective communication, creative problem solving, and critical thinking. Thus, through this practical experience, students not only gain knowledge, but also hone skills and

attitudes that are important in real life.

PBL also provides opportunities for students to develop independence and responsibility for their learning. In each project, students are given the freedom to explore a variety of resources, plan strategies, and evaluate their own progress. This encourages them to become active learners, not just passive recipients of information.

One of the main advantages of PBL is its ability to relate learning to real life. By encountering projects that mimic real-world situations, students can see the direct relevance of what they learn to their own lives. This helps motivate them to study harder because they see the practical value of what they are learning. Apart from that, PBL can also increase student involvement in learning. Through interesting and relevant projects, students tend to be more motivated to be actively involved in the learning process. They feel a responsibility to complete the project well, which can increase their intrinsic motivation to learn.

Lastly, PBL prepares students for success in real life by developing important 21st century skills. By emphasizing collaboration, communication, problem solving, and critical thinking, PBL helps students develop skills that are relevant and useful in the world of work and everyday life. Thus, PBL is not only in accordance with a competency-based curriculum approach, but is also an effective learning method to prepare students for success in the future.

These results indicate that the Project Based Learning (PBL) learning model is effective in increasing student activity. PBL is known to enable active participation of students and involve them more intensively in the learning process. This finding is consistent with previous research showing that PBL creates a learning environment that encourages students to take an active role in their learning (Dewi & Prasetyo, 2020). This active participation not only increases student engagement, but can also strengthen their understanding of the lesson material.

Furthermore, this research also found that the projects created by students demonstrated a deep understanding of the subject matter. This shows that PBL provides students with the opportunity to deepen the concepts learned through practical application in relevant projects (Rahman & Wahyuni, 2019). The process of working on a project requires students to explore a topic in greater depth, conduct detailed research, and apply their knowledge in creative ways. Therefore, project

results often reflect a higher level of understanding than conventional learning methods.

Projects are an indicator of success in applying the concepts and skills learned. This research shows that projects produced by students in a PBL context tend to be of higher quality than projects created in a conventional learning context (Siregar & Simanjuntak, 2021). This factor can be attributed to PBL's focus on the practical application of academic concepts, which allows students to test their understanding through real-life relevant projects.

High quality projects carried out by students can also reflect students' ability to produce final products that are beneficial for themselves and society at large (Wahyudi & Wijaya, 2020). Through these projects, students not only learn to fulfill academic requirements, but also to create innovative solutions to problems they identify in society. Therefore, these projects have the potential to have a real positive impact in their environment.

The success of a project in a PBL context is not only measured by the final product, but also by the learning process experienced by students during project work (Fitriana & Kusumawati, 2021). PBL provides students with the opportunity to develop critical, collaborative, and communication skills through teamwork and reflection on their experiences. Therefore, the success of the project reflects not only the quality of the final product, but also the quality of the learning experience experienced by the students.

Consider the challenges and obstacles that may be faced in implementing PBL (Wibowo & Pratama, 2022). Although PBL has the potential to increase student engagement and produce high-quality projects, it requires strong support from schools and educators to implement it effectively. It takes time, resources, and commitment to design, implement, and evaluate PBL projects consistently.

Based on these findings, it can be concluded that PBL is an effective learning model in increasing student activity, deepening their understanding of the subject matter, and producing high quality projects. However, to reach the full potential of PBL, strong support is needed from all relevant parties, including educators, schools and government. With the right support, PBL has the potential to transform students' learning experiences and prepare them for future success.

CONCLUSION

This study shows that the use of a project-based learning model can significantly increase students' activeness and practical skills in learning. Through this approach, students not only become passive observers of information, but they are also actively involved in the learning process, allowing them to develop a deeper understanding of the subject matter. By engaging students in relevant and challenging projects, they can apply their theoretical knowledge into practical contexts, thereby strengthening the connection between theory and practice. In addition, this learning model also encourages collaboration between students and provides feedback, which are important aspects in developing social and critical skills. The results of this research provide strong empirical support for the application of the project-based learning model as an effective strategy for increasing students' active participation and practical skills in the classroom. As a result, recommendations are given to expand the use of this learning model in broader educational contexts, taking into account appropriate adaptation to the specific needs and characteristics of different groups of students

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