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Implementation of the Problem Based Learning (PBL) Learning Model in Economics Subjects at Manado High School

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Abstract

This study explores the implementation of the Problem Based Learning (PBL) model in economics subjects at Manado High School. The objective of the research is to examine how PBL influences students' learning experiences, critical thinking, and engagement in economic topics. Using a qualitative descriptive method, data were collected through interviews with teachers and students, classroom observations, and document analysis. The results indicate that PBL enhances students' problem-solving abilities, promotes active participation, and encourages collaboration in learning. Teachers reported that students became more motivated and better understood economic concepts when learning was contextualized through real-world problems. However, several challenges were identified, including time constraints, varying levels of student preparedness, and the need for teacher training. Overall, the findings suggest that PBL is an effective approach to teaching economics and has the potential to improve the quality of education when implemented with appropriate support and resources.

Keywords: Problem Based Learning, Learning Model, Economic Subject

Introduction

21st century education demands fundamental changes in the approach to learning in schools, including in economics subjects. Learning is no longer only focused on transferring knowledge, but must also develop critical thinking skills, problem solving, and collaboration (Houghton, 2023). Therefore, conventional teacher-centered learning models are increasingly considered less effective in forming student competencies needed in this digital era (Silalahi et al., 2021). In response to these needs, the application of Problem Based Learning (PBL) is one of the solutions widely used in modern learning. (Yew & Goh, 2016)

Problem Based Learning (PBL) is a learning model that emphasizes the active involvement of students in solving real contextual problems. In PBL, students are not only

required to understand the material, but also to develop critical thinking, communication, and collaboration skills in solving problems (Sari & Suprapto, 2022). This model is very relevant to be applied to economics subjects, considering that economics is an applied science and full of social life dynamics. (Ghani et al., 2021)

In Manado, especially at the high school level, economics teaching still tends to use a traditional teacher-centered approach. This results in low active student participation and a lack of in-depth understanding of economic concepts. Several local and national studies have shown that the application of PBL can improve student learning outcomes in various subjects, including economics. Research by Prasetyo and Widodo (2020) shows that the application of PBL in economics learning can significantly improve analytical skills and understanding of economic concepts. (Hidajat, 2023)

However, the implementation of PBL in high school environments still faces several obstacles, such as time constraints, teacher readiness, and lack of learning resources that support a problem-based approach (Anazifa & Djukri, 2017). Therefore, it is important to conduct further research on how to implement the PBL model in economics learning, especially in Manado City High Schools. This study aims to describe the process of implementing PBL in economics subjects and identify its impact on student activities and understanding.

This study also strengthens previous findings such as those conducted by Simanjuntak and Nurhayati (2021), which showed that PBL can improve high-level thinking skills in high school students. In addition, research by Putri and Wahyuni (2023) emphasized that students feel more motivated when learning using a problem-based approach because they feel actively involved in the learning process. Thus, this study is important as a basis for improving economics learning strategies in high schools, so that they are more effective in shaping student competencies according to the needs of the times. (Amin et al., 2021)

Literature Review

Problem Based Learning: Definition and Theoretical Foundation

Problem Based Learning (PBL) is an instructional model that places students at the center of the learning process through engagement in real-world problems. This model is grounded in constructivist learning theory, which posits that learners actively construct their own knowledge through experience and reflection (Schmidt et al., 2019). PBL encourages inquiry, critical thinking, and self-directed learning, aligning with the educational demands of the 21st century. According to Dolmans et al. (2021), PBL facilitates deep learning and the transfer of knowledge to new contexts, especially when supported by skilled facilitation.

Key Features and Phases of PBL

The PBL model typically consists of several key phases: problem presentation, group discussion, independent research, solution formulation, and reflection. This process promotes not only content mastery but also collaborative learning and communication (Yew & Goh, 2016). Students are guided to ask questions, explore multiple perspectives, and synthesize

findings activities that mirror real-life problem solving.

Benefits of PBL in Economics Education

In the context of economics, PBL is particularly beneficial because the subject often deals with dynamic, real-world issues such as inflation, unemployment, and fiscal policy. Rahmawati and Ridwan (2023) demonstrated that PBL significantly improves students' economic literacy by allowing them to connect abstract concepts with current economic phenomena. Similarly, Kusnadi and Rachmadtullah (2021) found that the application of PBL enhances students' critical thinking skills in economics classes.

Student Engagement and Motivation in PBL

PBL fosters higher levels of student engagement and motivation compared to traditional lecture-based methods. When students work on relevant and meaningful problems, they are more likely to take ownership of their learning (Qian & Lehman, 2022). Dolmans et al. (2021) emphasize that the authenticity of problems plays a crucial role in sustaining student interest and promoting deeper cognitive engagement.

Teacher's Role in Facilitating PBL

Teachers in PBL classrooms function as facilitators rather than information deliverers. This shift requires new pedagogical skills, including the ability to guide inquiry, support group dynamics, and assess learning outcomes holistically (Lee et al., 2020). Teacher readiness and training are essential for successful PBL implementation, especially in subjects that require analytical thinking such as economics.

Challenges in Implementing PBL

Despite its advantages, PBL also presents certain challenges. Limited classroom time, insufficient resources, and varying levels of student preparedness can hinder effective implementation (Sungur & Tekkaya, 2020). Furthermore, the open-ended nature of problems may cause confusion among students unfamiliar with self-directed learning. These issues necessitate careful planning and institutional support.

Assessment in PBL Contexts

Assessment in PBL settings should go beyond content recall and include measures of collaboration, critical thinking, and reflective learning. As highlighted by Lee et al. (2020), traditional assessment tools may be inadequate in capturing the full range of skills developed in PBL. Therefore, a combination of formative and summative assessments is recommended to ensure a comprehensive evaluation of student learning.

PBL and 21st Century Skills

The adoption of PBL is consistent with the goals of 21st-century education, which emphasize critical thinking, creativity, collaboration, and communication. These competencies are essential in economics education, where students must analyze data, evaluate policy impacts, and present arguments (Savery, 2019). PBL provides an ideal platform for nurturing

these skills in an integrated and meaningful manner**.**

Indonesian Education Policy and PBL

The Indonesian national curriculum encourages the use of student-centered approaches like PBL. According to the Ministry of Education and Culture (Kemdikbud, 2020), active learning models are vital for improving learning outcomes and preparing students for real-life challenges. Studies have shown that PBL aligns well with these policy goals and can be effectively integrated into Indonesian classrooms when supported by adequate training and infrastructure.

Previous Studies on PBL in Indonesian Contexts

Several recent studies have investigated the effectiveness of PBL in Indonesian high schools. For instance, Rahmawati and Ridwan (2023) used classroom action research to demonstrate improved economic understanding and student participation through PBL. Kusnadi and Rachmadtullah (2021) also noted significant gains in students' problem-solving abilities and critical thinking after implementing the model in economics lessons.

Research Method

This study uses a descriptive qualitative approach with the aim of obtaining an in-depth picture of the implementation of the Problem Based Learning (PBL) learning model in Economics subjects. The focus of this study is on the process of implementing PBL in the classroom, the obstacles faced, and students' responses to the learning model. The subjects of the study were Economics teachers and grade XI students at one of the State Senior High Schools in Manado City. The determination of the subjects was carried out by purposive sampling, taking into account the teacher's experience in implementing the PBL model and the active involvement of students in the learning process. Data collection techniques include: 1) Direct observation of the learning process in the classroom. Semi-structured interviews with teachers and students; 2) Documentation in the form of lesson plans, learning media, and student assignments; 3) Data analysis was carried out using data reduction techniques, data presentation, and drawing conclusions according to the interactive model of Miles and Huberman (1994). Data validity was maintained using source and method triangulation techniques, to ensure data validity and reliability.

Result

The Implementation of the PBL Model in Economics Learning

Based on classroom observations and interviews, the implementation of the Problem Based Learning (PBL) model in economics classes begins with the presentation of real-world problems such as inflation, unemployment, and the increase in staple goods prices. The teacher acts as a facilitator by presenting a contextual case to stimulate students' curiosity and problem-solving skills. Students are then encouraged to work collaboratively to explore the economic

concepts behind these real situations.

During the second phase, students are divided into groups and assigned to investigate the problem further using resources from the internet, books, and community interviews. This activity cultivates student independence and critical thinking. One student said, "I understood inflation better because we observed the market prices ourselves. It was more real than just reading from a book." The learning process is no longer teacher-centered but becomes highly interactive and investigative.

In the presentation stage, students showcase their findings using posters and PowerPoint slides. Each group takes turns explaining their analysis and answering questions from peers. The classroom atmosphere becomes dynamic, with students engaging in debates, asking questions, and making comparisons. The teacher supports the discussion by highlighting connections between students' ideas and economic theory. This process enhances student comprehension and communication skills.

According to the interviewed teacher, students show higher motivation and deeper understanding when using the PBL model. "They don't just memorize; they truly understand the context. That's what makes the learning stick," the teacher explained. The teacher also noted that the PBL approach encourages students to take ownership of their learning, making them more responsible and confident.

Overall, the implementation of PBL in economics classes at Manado High School was carried out effectively in selected topics. The success was driven by the teacher's readiness to plan relevant real-world cases and guide students during each phase. The students responded positively, showing improvement in engagement, problem-solving, and conceptual understanding.

Obstacles in Implementing the PBL Model

One of the main challenges faced in implementing PBL is the limited instructional time. Teachers reported difficulties in completing all basic competencies required in the curriculum when using the PBL approach. Each phase of PBL, problem presentation, investigation, discussion, and presentation, requires more time than traditional lecturing. The teacher noted, "Sometimes we can't finish the discussion because the class period ends too soon."

Another issue is the students' readiness for independent learning. Some students were not familiar with working in groups or conducting research on their own. A student admitted, "In PBL, I'm often confused about where to start. Not all team members are active." This indicates a need for structured scaffolding and training in collaborative learning techniques and time management.

Access to information also presents a barrier. Not all students have equal access to internet resources or digital devices, which are essential for conducting investigations. One student shared, "Our group only had one phone to search for data, so we had to take turns. It was slow." Moreover, the lack of local, contextual economic materials makes it harder for teachers to design engaging PBL scenarios.

Teachers also highlighted the difficulty in assessing student performance objectively in a group-based learning environment. Since results often reflect group efforts rather than individual understanding, designing fair and accurate assessment tools is a challenge. "We're still looking for the best way to evaluate PBL outcomes fairly, especially on an individual basis," the teacher explained.

Despite these challenges, teachers and students expressed a willingness to continue applying PBL. With further support in terms of planning time, access to resources, and professional development, the implementation of PBL can be enhanced. The success of PBL lies not only in methodology but also in infrastructure and institutional support.

Students' Responses to the PBL Model

Most students expressed positive responses to the implementation of the PBL model in their economics classes. They found the process more engaging and meaningful compared to traditional lectures. A student stated, "It feels like we are researchers. We get to explore and find out things ourselves, not just listen to the teacher." This level of involvement contributed to increased motivation and enthusiasm during class.

Students felt that connecting lessons with real-life economic problems helped them understand abstract concepts better. For example, in a unit on unemployment, students interviewed people in their communities, which gave them a concrete understanding of the causes and effects of unemployment. One student said, "Learning became more interesting because we could see how it affects our neighbors and families."

Initially, some students struggled with the demands of self-directed learning. However, over time, they adjusted and developed more confidence in presenting and discussing ideas. "At first, I was shy and confused, but now I enjoy presenting and giving my opinion," a student shared. This shows that the PBL model helps develop soft skills such as communication and confidence, along with academic knowledge.

Students also appreciated the teacher's role in guiding rather than dominating the class. The teacher provided space for students to express their ideas while offering feedback and clarification when necessary. "Our teacher doesn't just talk all the time; she helps us think and discuss. That's why I like PBL," another student mentioned.

In conclusion, student feedback indicates that the PBL model creates a more participative and enjoyable learning environment. Even though there were initial difficulties, students recognized the benefits of active learning. The PBL model not only improved academic outcomes but also enhanced collaboration, creativity, and critical thinking among learners.

Discussion

The implementation of the Problem Based Learning (PBL) model in economics subjects at Manado High School demonstrates a significant shift from traditional lecture-based instruction to a more student-centered, inquiry-driven approach. The findings of this study support the theoretical foundation of PBL, which is rooted in constructivist learning theory.

According to this perspective, students construct knowledge through active engagement and social interaction rather than passively receiving information (Schmidt, Rotgans, & Yew, 2019). The real-world economic issues used in the classroom, such as inflation and unemployment, served as meaningful contexts that enabled students to develop both conceptual understanding and problem-solving abilities.

Students' enhanced engagement and motivation during the PBL process confirm previous research that highlights the motivational benefits of problem-based approaches. As Dolmans et al. (2021) argue, when students are presented with relevant, challenging problems, they tend to take greater ownership of their learning. This was evident in the current study, where students conducted group discussions, analyzed community-based economic cases, and presented their findings with enthusiasm. The integration of collaborative learning and real-world relevance not only deepened their comprehension but also fostered critical thinking, teamwork, and communication key competencies in 21st-century education.

Despite the clear benefits, this study also reveals practical challenges in implementing PBL effectively. Time limitations, uneven student participation, and limited access to digital resources were notable obstacles. These constraints align with the findings of Qian and Lehman (2022), who identified similar implementation barriers in secondary school settings. Moreover, the varying levels of students' readiness for independent learning pose a concern. Without sufficient scaffolding and teacher facilitation, some students may struggle to navigate complex economic problems, leading to unequal learning outcomes. These findings highlight the importance of professional development for teachers in designing and managing PBL activities effectively.

Another key finding from this study relates to assessment. The teacher expressed difficulties in evaluating student performance fairly in group-based settings. This echoes the concerns raised by Lee et al. (2020), who emphasize that assessment in PBL should not only focus on content knowledge but also consider process skills such as collaboration, inquiry, and reflection. Therefore, there is a need for more comprehensive assessment tools tailored to PBL that combine formative and summative approaches to capture student learning holistically.

In summary, the implementation of the PBL model in economics education at Manado High School aligns with current pedagogical trends that emphasize active learning, real-world relevance, and student autonomy. While challenges remain particularly in terms of time, resources, and assessment the benefits observed in student engagement, comprehension, and skill development are substantial. The findings suggest that with adequate support, teacher training, and curriculum flexibility, PBL can significantly enhance economics education in Indonesian high schools and beyond.

Conclusion

The implementation of the Problem Based Learning (PBL) model in economics education at Manado High School has proven to be an effective instructional approach that promotes active learning, critical thinking, and student engagement. Through the use of real-

world economic problems, students were able to connect theoretical concepts with practical applications, thereby deepening their understanding of the subject matter. The PBL model shifted the learning process from teacher-centered to student-centered, fostering greater autonomy, collaboration, and communication among students.

This study also highlights that while the PBL model offers numerous benefits, its successful implementation requires thoughtful planning and support. Teachers must be equipped with the necessary pedagogical and managerial skills to facilitate inquiry-based learning, and schools must provide adequate time, resources, and flexible curricula to accommodate the process. Challenges such as varying levels of student readiness and limited access to resources must be addressed to ensure equitable learning opportunities.

In conclusion, PBL serves as a promising alternative to traditional teaching methods in economics education. It aligns with the goals of the 21st-century education framework and supports the development of essential life skills. With continued support, training, and refinement, the PBL model has the potential to enhance the quality of economics instruction not only at Manado High School but also in other educational institutions seeking meaningful, student-centered learning experiences.

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