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PROJECT-BASED LEARNING IMPLEMENTATION IN A PARTICIPATIVE PLANNING COURSE: STRATEGIES, OUTCOMES AND CHALLENGES

IMPLEMENTASI PEMBELAJARAN BERBASIS PROYEK PADA MATA KULIAH PERENCANAAN PARTISIPATIF: STRATEGI, HASIL DAN TANTANGAN

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ABSTRACT

The principal aim of this research was to understand the strategies employed in Project Based Learning (PBL) implementation in higher education setting, evaluate its impact on students' learning experiences, and pinpoint challenges faced during its application. Employing a case study method, insights were derived from in-depth examinations of specific PBL implementations within the course, facilitated by structured interviews, observation, and document analysis. The research participants are two lecturers and twenty students. The lecturers were chosen for their extensive experience in PBL implementation, while the students were purposively selected to ensure diversity in terms of academic performance, gender, and previous exposure to PBL. Thematic analysis was employed as the methodological framework for scrutinizing and interpreting qualitative data sourced from in-depth interviews and observational data. Key findings highlight the critical importance of a structured PBL introduction, the essence of real-world application through fieldwork, and the central role of collaboration, especially leveraging modern digital platforms. While the benefits of PBL in enhancing conceptual grasp and promoting soft skills development were evident, challenges, notably in team dynamics, resource provision, and the inherent unpredictability of real-world tasks, were also brought to the fore. By aligning the insights from the Participative Planning course with established PBL literature, the study illuminates the universal principles of PBL and their associated challenges. Conclusively, the paper underscores PBL's potency as a transformative pedagogical tool, emphasizing the necessity for informed strategies, adaptability, and iterative refinement for its efficacious implementation in diverse educational contexts.

Keywords: Project Based Learning in Higher Education, Project Based Learning Challenges, Project based Learning implementation

ABSTRAK

Tujuan utama dari penelitian ini adalah untuk memahami strategi yang digunakan dalam menerapkan Project Based Learning (PBL) di lingkungan pendidikan tinggi, mengevaluasi dampaknya terhadap pengalaman belajar siswa, dan menentukan tantangan yang dihadapi selama penerapannya. Dengan menggunakan metode studi kasus, temuan penelitian diperoleh dari studi mendalam tentang implementasi PBL dalam mata kuliah Perencanaan Partisipatif, pengumpulan data dilakukan dengan cara wawancara terstruktur, observasi, dan analisis dokumen. Peserta penelitian berjumlah dua orang dosen dan dua puluh mahasiswa. Para dosen dipilih karena pengalaman mereka yang luas dalam pelaksanaan PBL, sementara para mahasiswa dipilih secara purposif untuk memastikan keragaman dalam hal kinerja akademik, jenis kelamin, dan paparan PBL sebelumnya. Analisis tematik digunakan sebagai kerangka metodologis untuk meneliti dan menafsirkan data kualitatif yang bersumber dari

wawancara mendalam dan data pengamatan. Temuan penelitian ini menyoroti pentingnya pengenalan PBL secara terstruktur, esensi aplikasi dunia nyata melalui kerja lapangan, dan peran sentral kolaborasi, terutama memanfaatkan platform digital modern. Sementara manfaat PBL dalam meningkatkan pemahaman konseptual dan mempromosikan pengembangan soft skill terbukti, tantangan, terutama dalam dinamika tim, penyediaan sumber daya, dan ketidakpastian yang melekat pada tugas dunia nyata, juga dibawa ke permukaan. Dengan menyelaraskan wawasan dari mata kuliah Perencanaan Partisipatif dengan literatur PBL yang mapan, studi ini menerangi prinsip-prinsip universal PBL dan tantangannya. Secara meyakinkan, penelitian ini menggarisbawahi potensi PBL sebagai alat pedagogis transformatif, menekankan perlunya strategi informasi, kemampuan beradaptasi, dan penyempurnaan dalam penerapannya dalam konteks pendidikan yang beragam.

Kata kunci: *Project Based Learning di Perguruan Tinggi, Tantangan Pembelajaran Berbasis Proyek, Implementasi Project based Learning*

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INTRODUCTION

Project-based learning (PBL) is an instructional approach that emphasizes student engagement and active learning through the completion of real-world projects (Anazifa & Djukri, 2017; Basjaruddin & Rakhman, 2016; Muslimah et al., 2023; Nurinayah et al., 2021). It is a constructivist learning-teaching strategy in which students work together on a project to find a solution to a specific problem (Hafeez, 2022). PBL requires careful design, personalized mentorship, and predefined outcomes (Shibani & Buck, 2022). The design of project-based learning experiences involves domain expertise and the consideration of transdisciplinary learning (Shibani & Buck, 2022). The steps of PBL typically include project determination, designing project completion steps, preparation of project implementation schedules, completion of projects with teacher facilitation and monitoring, preparation of project reports and presentations, and evaluation of project processes and results (Bastola, 2021; Ilyas & Saeed, 2021).

Participative Planning is a dynamic field that emphasizes the involvement of community members in the decision-making processes concerning their environments and livelihoods. Traditionally, teaching in Participative Planning courses has relied on a combination of lectures, readings, and discussions, which focus on theoretical frameworks and case studies from diverse contexts. While these methods offer students a foundational understanding of key principles and practices, there is a growing recognition that participative planning, by its very nature, requires a more hands-on, experiential learning approach to create competent students (Anugrahwanto & Nurhayati, 2020; Nurhayati, 2018). This realization has led educators to seek innovative pedagogical methods that not only impart knowledge but also equip students with practical skills and real-world insights to increase students' competitiveness (Nurmawati et al., 2021).

Project-Based Learning (PBL) emerges as a promising pedagogical approach in this higher education context. PBL emphasizes learning through doing, where students actively engage in real-world and personally meaningful projects. Given that Participative Planning is centered around community engagement and collaborative problem-solving, integrating PBL into the curriculum could offer students authentic experiences that mirror real-world planning scenarios. By working on tangible projects, students can better grasp the complexities and nuances of community dynamics, stakeholder interests, and the multifaceted nature of planning decisions. Moreover, the skills honed through PBL, such as collaboration, critical thinking, and effective communication, are directly transferable to the roles students might assume as future community planners (Krsmanovic, 2021). Thus, exploring the implementation and outcomes of PBL in Participative Planning courses is not just beneficial but essential to ensure the holistic development of students.

Project-Based Learning is a valuable instructional approach for a participative planning course. By implementing PBL, students can engage in real-world projects, develop essential skills, and achieve positive learning outcomes (Krsmanovic, 2021). However, the successful implementation of PBL requires careful planning, pedagogical competency development, and the integration of technology (Basjaruddin & Rakhman, 2016). Although there exists a growing corpus of scholarly work examining the advantages and obstacles associated with Project-Based Learning (PBL) in several fields, there is a noticeable absence of research pertaining to its implementation in Participative Planning courses. Numerous academic investigations have lauded the merits of problem-based learning (PBL) in cultivating critical thinking abilities, promoting collaboration, and enhancing capabilities in addressing real-world problems. Nevertheless, limited research has explored the specific manifestations of these benefits within the framework of Participative Planning, a domain intrinsically grounded in community involvement and cooperative decision-making. Furthermore, it is worth noting that although several educators in the realm of planning and community development have begun integrating project-based learning (PBL) methodologies into their instructional practices, there remains a dearth of comprehensive research regarding the implementation strategies, student outcomes, and potential obstacles associated with Participative Planning courses. This research aims to address this knowledge gap by offering empirical observations on the complexities of implementing Project-Based Learning (PBL) in a Participative Planning course, as well as its effects on student learning and engagement. Given the potential alignment between the tenets of PBL and the objectives of Participative Planning education, this study seeks to address the following research question: "How does the implementation of Project-Based Learning in a Participative Planning course influence students' understanding, skills, and perceptions of participative planning practices?" Through this question, the study aims to uncover the strategies used in PBL implementation, the outcomes achieved, challenges faced, and the overall impact on students' learning experiences in the context of Participative Planning.

MATERIAL AND METHODS

This study adopts a qualitative research approach to delve deeper into the experiences, perceptions, and interpretations of participants in the context of project-based learning (PBL) implementation. The case study method, apt for exploring contemporary phenomena within real-life settings, was chosen to investigate the nuances of PBL within the Participative Planning course at IKIP Siliwangi. The research was conducted from February 2023 to August 2023. Situated within the Community Education Study Program at IKIP Siliwangi, the Participative Planning course inherently emphasizes community involvement and holistic education. It presents a fertile ground for understanding the intricacies of PBL, given its collaborative and project-oriented nature. For this study, two lecturers directly involved in PBL implementation were selected. These lecturers were chosen based on their extensive experience with PBL in the Participative Planning course. Additionally, twenty students from the program, representing a mix of genders, academic performances, and prior PBL experiences, were purposively chosen. The criteria for selecting students included a range of academic performance levels, a variety of genders, and varying degrees of prior exposure to PBL. Their identities were also anonymized to uphold ethical considerations.

Data collection was multifaceted to ensure a comprehensive understanding. Individual semi-structured interviews, approximately 45 minutes to an hour in length, were conducted with the lecturers. These interviews revolved around their personal experiences, challenges, and insights regarding PBL. Simultaneously, students participated in focus group interviews, grouped into sets of five, to discuss their perspectives, challenges, and reflections on PBL. Classroom observations further enriched the data, shedding light on real-time student engagement, collaboration patterns, and PBL session dynamics. As part of the data collection, course materials—including PBL guidelines, student submissions, feedback forms, and course outlines—were scrutinized for additional insights.

The data analysis was meticulous and systematic. Initial open coding was applied to interview transcripts, observation notes, and documents, breaking down the data into discrete segments, which were then examined for patterns. This process subsequently evolved into axial coding, where

relationships between these segments were discerned, leading to the formulation of overarching themes. To bolster the validity of the findings, triangulation was employed, comparing data from various sources to identify consistent patterns and interpretations. Throughout this analytical journey, a reflective journal was maintained, ensuring transparency, trustworthiness, and acknowledgment of any potential biases.

RESULT AND DISCUSSION

Implementation Strategies of Project-Based Learning (PBL) In A Participative Planning Course

The adoption of Project-Based Learning in the Participative Planning course has showcased a varied range of strategies. A primary finding from the empirical data indicates a diversity in the introduction to PBL. Some students commenced their journey with detailed presentations, encapsulating the course's essence, while others were ushered in with a comprehensive course overview. This variation highlights the importance of a well-structured introduction to PBL, ensuring students are adequately prepared and attuned to the upcoming learning experience. A standout attribute of PBL, as indicated by the research, is its emphasis on real-world application. Students expressed a strong inclination towards practical exposure, emphasizing the need to integrate tangible scenarios, especially fieldwork, into the curriculum. This approach seamlessly melds theoretical constructs with hands-on experiences, offering students a comprehensive grasp of Participative Planning concepts.

Collaboration emerges as a cornerstone of PBL. The data underscores students' appreciation for open discussions, mutual problem-solving, and collaborative learning. This emphasis on teamwork is further reflected in their choice of communication tools. Digital platforms, especially Google Meet and WhatsApp, have been instrumental in facilitating these collaborative endeavors, pointing to the growing significance of digital tools in modern education. Ensuring students are well-equipped is pivotal for PBL's success. The research sheds light on the common provision of modules and references, acting as guiding beacons for students navigating the complexities of PBL tasks. However, this journey isn't devoid of challenges. Team dynamics, marked by communication hurdles and coordination issues, surfaced as recurrent challenges. Addressing these requires a multifaceted approach, encompassing team-building initiatives, conflict resolution strategies, and platforms for open dialogue. Feedback is another crucial facet of PBL, with the need for a robust feedback mechanism being paramount. The data suggests the efficacy of regular check-ins, peer assessments, and mentor-guided feedback sessions, ensuring students remain aligned with their learning objectives and promptly address any uncertainties.

The dynamic nature of PBL is both its strength and challenge. Students, while appreciating the flexibility and real-world alignment of PBL, also encountered unexpected hurdles, especially during field engagements. This unpredictability necessitates educators to be adaptable, ready to address unforeseen challenges and guide students through them. Beyond academic enrichment, PBL emerges as a crucible for soft skill development. Enhancements in communication prowess, teamwork capabilities, and even leadership qualities were evident from the findings. Embedding activities that further refine these skills can exponentially enhance the PBL experience. To encapsulate, the successful integration of PBL in a Participative Planning course hinges on a confluence of structured guidance, tangible exposure, collaborative engagements, and dynamic adaptability. The research findings illuminate these strategies, emphasizing their role in not just enriching the PBL experience but also priming students for the multifaceted challenges of Participative Planning in real-world settings.

The implementation of PBL typically involves several stages, including planning, creating, and processing. In general, PBL takes three stages: project planning, project implementation, and project evaluation (Tarigan & Latief, 2022). The steps of implementing PBL include project determination, designing project completion steps, preparation of project implementation schedules, completion of projects with teacher facilitation and monitoring, preparation of project reports and presentations, and evaluation of project processes and results (Ilyas & Saeed, 2021; Nurinayah et al., 2021; Octaviani et

al., 2023). These strategies provide a framework for effectively implementing PBL in a participative planning course.

Project-Based Learning (PBL) in higher education has been extensively researched, revealing certain foundational principles that contribute to its success. The strategies and observations derived from the Participative Planning course at IKIP Siliwangi resonate with these established principles, demonstrating the universality and applicability of PBL concepts. The importance of a clear and well-structured introduction to PBL is often emphasized in literature (Ashiq, 2022). This ensures students grasp the purpose, process, and desired outcomes of their PBL experience. This perspective is reflected in the Participative Planning course, where the instructor provides a comprehensive introduction through detailed presentations and course overviews, setting clear expectations right from the beginning.

A significant facet of PBL, as supported by studies, is the integration of real-world problems to enhance student engagement and learning relevance (Krajcik & Shin, 2022). In alignment, the course at IKIP Siliwangi employs real program planning examples and emphasizes fieldwork, making learning experiences more hands-on and contextually relevant. Collaboration is a cornerstone of PBL, with research indicating that collaborative environments promote deeper understanding and critical thinking (Foski et al., 2017; Knoblauch, 2022). The findings from IKIP Siliwangi not only corroborate this but also demonstrate the modern evolution of collaboration, leveraging digital platforms like Zoom Meet and WhatsApp to foster teamwork and communication. Providing students with adequate resources is paramount for PBL's effectiveness (Permata et al., 2022). The Participative Planning course echoes this sentiment by offering modules and references, ensuring students are well-anchored throughout their PBL journey. Group dynamics can often pose challenges in PBL settings. However, proactive strategies to address these challenges can significantly enhance team outcomes (Yang et al., 2021). The course at IKIP Siliwangi integrates team-building exercises and conflict resolution sessions, reflecting this research-based approach. Feedback mechanisms play a crucial role in the PBL process. Continuous feedback ensures that students refine their understanding and stay aligned with their learning objectives (Ali et al., 2021). The instructor's commitment to regular check-ins and evaluations in the Participative Planning course is a testament to this principle. Adaptability, given PBL's dynamic nature, is essential. It not only ensures the smooth progression of tasks but also prepares students for real-world unpredictabilities (Permata et al., 2022). This adaptability is evident in the course's approach, especially when students face unexpected challenges during fieldwork. Lastly, PBL's significant contribution to soft skill development, such as communication, collaboration, and critical thinking, is well-documented (Belwal et al., 2020; Permata et al., 2022). This is mirrored in the insights from IKIP Siliwangi, where students showcased notable enhancements in these areas. In essence, the Participative Planning course's strategies at IKIP Siliwangi align seamlessly with established research on PBL, reinforcing the robustness and efficacy of the PBL approach in higher education.

Outcomes Of Project-Based Learning (PBL) In A Participative Planning Course

The introduction of Project-Based Learning (PBL) into the Participative Planning course has heralded a transformative shift in students' learning experiences. One of the most salient outcomes observed was a marked enhancement in both conceptual and practical understanding. Students were not just confined to abstract theories; they actively applied their knowledge in real-world contexts, especially during fieldwork. This synthesis of theory and practice stands out as a testament to the efficacy of the PBL approach. Moreover, the dynamic challenges presented by PBL tasks have been instrumental in honing students' critical problem-solving skills. In navigating these tasks, students were compelled to critically dissect situations, analyze multifaceted challenges, and devise innovative solutions. Such an active engagement is particularly crucial in a discipline as intricate and evolving as Participative Planning.

Beyond the realms of academic and cognitive development, PBL has ushered in a notable refinement in students' soft skills. The collaborative nature of PBL tasks, demanding seamless communication and teamwork, provided an ideal platform for students to bolster their interpersonal

skills. The research findings particularly spotlighted advancements in areas like communication, collaborative dynamics, and in certain instances, emergent leadership traits. Diving deeper into the real-world applicability of PBL, it became evident that students were no longer mere spectators in the learning process. They actively plunged into real-world scenarios, with fieldwork offering them invaluable insights into the intricacies of Participative Planning. Through these engagements, they grappled with tangible challenges, liaised with diverse communities, and crafted actionable plans in real settings. However, the PBL journey wasn't without its hurdles. Team dynamics posed significant challenges. Yet, these very challenges metamorphosed into opportunities, fostering enhanced team collaboration. As students navigated issues related to coordination, communication, and contribution disparities, they imbibed invaluable lessons on teamwork, mutual respect, and transparent communication.

Interestingly, PBL's structured framework also left room for serendipitous learning. The research underscored moments where students stumbled upon unforeseen insights, particularly during their field engagements. These unanticipated lessons added depth to their learning journey, pushing them to think beyond traditional academic boundaries. A notable byproduct of the PBL experience was the burgeoning confidence observed among students. Engaging directly with real-world challenges and witnessing their solutions come to fruition instilled a robust sense of capability in them. They emerged with the confidence that they were not only well-versed in theoretical knowledge but also adept at applying this knowledge in real-world Participative Planning scenarios. To encapsulate, the integration of PBL into the Participative Planning course has proven to be a resounding success. It has transformed students from passive learners to active problem solvers and collaborators, equipping them with the skills and confidence to make impactful contributions in the field of Participative Planning.

Outcomes of Project-Based Learning: Research has shown that PBL has positive impacts on student motivation, perceived learning, and performance (Yang et al., 2021). PBL interventions have been found to improve science achievement in high school chemistry and physics (Krajcik & Shin, 2022). Additionally, PBL has been shown to enhance students' social interaction skills in business English (Huang & Huang, 2019). Students participating in PBL have reported feeling happier, more motivated, and more creative (Ad'hiya et al., 2023). Furthermore, PBL has been found to develop students' oral communication skills in English as an additional language (García-Sampedro, 2018). These outcomes highlight the effectiveness of PBL in promoting student engagement, learning, and skill development. Challenges of Implementing Project-Based Learning: While PBL offers numerous benefits, its implementation can also present challenges. One challenge is the need for pedagogical competency development among teachers to effectively implement PBL (Yuwono & Rapisa, 2021). Teachers need to be equipped with the necessary skills and knowledge to guide students through the PBL process. Another challenge is the integration of technology in PBL, particularly in blended learning environments (Knoblauch, 2022; Permata et al., 2022). The use of digital tools and online platforms can enhance PBL experiences but may require additional training and support for both teachers and students (McGuinness & Fulton, 2019). The implementation of PBL in education has been shown to have positive effects on student learning outcomes. Research has demonstrated that PBL can improve students' critical thinking, creativity, and problem-solving skills (Anazifa & Djukri, 2017). It has also been found to enhance students' learning outcomes in various subjects, including mathematics, engineering mechanics, and biology (Ashfahani et al., 2020; Hikmawati & Suryaningsih, 2020; Pohan & Rambe, 2022). Additionally, PBL has been shown to increase students' interest and engagement in learning, as well as their social interaction skills (Huang & Huang, 2019; Krajcik & Shin, 2022).

Challenges Of Project-Based Learning (PBL) In A Participative Planning Course

Project-Based Learning (PBL) promises a transformative educational experience. Yet, its implementation in the Participative Planning course has unveiled several challenges that educators and students must navigate. Central to PBL is collaboration, an aspect that, ironically, posed significant hurdles. Variabilities in work ethics, communication preferences, and academic orientations

sometimes culminated in discord. The challenge was amplified during virtual collaborations, where the subtleties of in-person interactions were notably absent, leading to potential misunderstandings. The real-world orientation of PBL, while its hallmark, also brought forth complexities. Students found themselves grappling with challenges alien to traditional classroom settings. Whether it was logistical dilemmas during fieldwork or decoding the socio-cultural dynamics of the communities they engaged with, these real-world intricacies tested their adaptability and resilience. The multifaceted nature of PBL tasks occasionally left students feeling adrift, overwhelmed by the magnitude of tasks and the absence of a clear direction. Without well-defined milestones, the path forward sometimes appeared nebulous.

Resource availability, though comprehensive, did not always align with the unique challenges students faced. While modules and references acted as guiding beacons, there were instances where students yearned for specialized resources tailored to niche challenges. This underlined the importance of ensuring diverse and adaptive resources to cater to the multifarious demands of PBL. Moreover, striking a harmonious balance between theoretical rigor and practical application emerged as a challenge. While PBL's emphasis on hands-on application is invaluable, it's equally imperative to ensure that this practicality is rooted in a solid theoretical foundation. Team dynamics, especially around equitable participation, posed another challenge. PBL's collaborative tasks occasionally witnessed uneven participation, with some students shouldering more responsibilities than others. Such disparities, driven by enthusiasm or perceived necessity, affected the overall outcome and, more importantly, individual learning trajectories. As the world increasingly pivots to digital, the use of platforms like Google Meet and WhatsApp became integral to PBL. However, this digital transition was not without its challenges. Familiarity with these platforms varied, leading to occasional miscommunications or technical issues, impeding seamless collaboration. In synthesizing these challenges, it's evident that PBL's potency as a pedagogical approach is intertwined with its complexities. For its successful integration into the Participative Planning course, a blend of meticulous planning, unwavering support, and dynamic adaptability is paramount. By proactively addressing these challenges, educators can ensure not only an enriched PBL experience but also a cohort of students equipped and confident to navigate the multifaceted realm of Participative Planning.

However, the implementation of PBL also presents challenges. One of the challenges is the need for effective planning and design of PBL experiences (Shibani & Buck, 2022). This includes formulating learning objectives, determining topics, and grouping students with diverse ability levels. Another challenge is the assessment of PBL projects. Assessing the outcomes of PBL projects requires careful consideration of the intended learning outcomes and the evidence of successful outcomes (Kligyte et al., 2021). Furthermore, the successful implementation of PBL requires the support and training of educators (Arianto, 2021). Educators need to be equipped with the necessary skills and knowledge to effectively facilitate PBL experiences and provide personalized mentorship to students (Arianto, 2021). In conclusion, project-based learning is a valuable instructional approach that promotes student engagement, active learning, and the development of critical thinking and problem-solving skills. The implementation of PBL requires careful planning, personalized mentorship, and assessment strategies. While PBL has been shown to have positive effects on student learning outcomes, it also presents challenges that need to be addressed through effective planning, training, and support for educators.

CONCLUSION

The implementation of Project-Based Learning (PBL) in the Participative Planning course at IKIP Siliwangi has resulted in a multitude of valuable observations, which have presented both opportunities for growth and difficulties to overcome. The research conducted in our study revealed that Project-based learning (PBL) provides a pedagogical experience that has the potential to bring about significant changes, improving students' comprehension and application of participative planning concepts. Through the deliberate engagement of students in authentic experiences,

particularly by means of fieldwork, project-based learning (PBL) guarantees that the acquisition of knowledge is not solely confined to theoretical concepts, but rather intimately connected to real-life implementation. In summary, the process of incorporating project-based learning (PBL) into academic curricula, although full of potential, is complex. As educators persist in navigating this pedagogical strategy, it becomes crucial to derive insights not only from specific courses but also from the wider academic milieu. By adopting this approach, it guarantees a more intricate, knowledgeable, and efficient execution of Project-Based Learning (PBL), ultimately yielding advantages for both leacturers and learners.

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