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Exploring the Success of Implementing Project-Based Learning Model in Accounting Learning Material

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Abstract: This study aims to explore the success of implementing the Project Based Learning (PjBL) model in the elements of Service, Trade, and Manufacturing Company Accounting. The approach used in this research was qualitative with a case study method. This research selected one vocational school with high integrity, namely SMKN 1 Banyudono, with several informants consisting of students in Financial and Institutional Accounting classes, Accounting Teachers, and the School Principal. Data collection methods included interviews, observations, and documentation studies, with data validity tested through technique triangulation and source triangulation. The collected data was analyzed through three activities: data reduction, data presentation, and drawing conclusions or verification. The results showed that PjBL had a positive impact on students' learning outcomes, the quality of learning, and learning motivation. However, its weakness laid in requiring longer project implementation time and preparation. Nevertheless, PjBL can create an innovative learning environment, make graduates more prepared for the industrial world, and have a positive impact on students' learning outcomes and the quality of learning.

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Introduction

Education serves as a benchmark for the progress of a nation. The primary task of education plays a crucial role in shaping and nurturing the national character, strengthening national identity, and solidifying the essence of a nation. (Kadi & Awwaliyah, 2017). It is a conscious and planned effort to create an environment and learning process where learners actively develop spiritual and religious strength, self-control, personality, intelligence, noble character, skills, and qualities needed by individuals, communities, nations, and the country (Walidah et al., 2020).

Education must be adaptable to changes to avoid disparities. Management, government and community roles, curriculum or teaching materials, teaching approaches and methodologies, human resources, school environment, funding, and accreditation are all components that are seen to change as time progresses (Sri Parnayathi, 2020). One government effort to improve education and adapt is through curriculum changes. The current curriculum in all academic units, including early childhood education, elementary school, middle school, high school, vocational school, and special education and equivalency, is the Merdeka Curriculum (Kasman & Lubis, 2022).

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The use of the Merdeka Curriculum requires learning to focus on or be centered around children, with the goal of deepening their learning and strengthening their competencies. One implementation within the Merdeka curriculum that can maximize the development of pedagogical, social, and personal competencies of teachers is using the Project-Based Learning (PjBL) model (Lestari, 2019; Nursalam et al., 2023). Project-Based Learning (PjBL) is a learning model that uses projects as a learning tool to achieve competency attitudes towards mastering concepts, creativity, leadership, knowledge, courage, and skills. Learners independently analyze their investigations to solve problems or draw conclusions by submitting project tasks or presenting them after building the necessary knowledge to organize their ideas and work (Bahari et al., 2022). This process is carried out through cooperative activities, process monitoring, and feedback on their activities. This learning is a substitute for teaching that always focuses on speakers (Shin, 2018; Zen et al., 2022).

The use of PjBL is beneficial in meeting students' expectations of real-life situations. The PjBL model can develop critical thinking in students to solve real-world problems as they engage in tasks in the real world (Becerra-Posada et al., 2022; Hasan et al., 2023; Santos et al., 2023). Learning connects knowledge and actions, allowing students to learn by applying knowledge related to real-world life (Baser et al., 2017; Rees Lewis et al., 2019; Mega Elvianasti et al., 2022). According to Cresswell-Yeager (2021), through project application, students acquire principles, learning becomes active, and students can communicate and reflect on their observations. Schools bear the responsibility of equipping students to navigate transitions in their careers. The objective is not just to furnish students with theoretical knowledge but also to instill practical skills and sufficient competencies, ensuring their readiness to secure fitting employment opportunities in their professional journeys. (Maros et al., 2023). Innovative methods in teaching, designing the curriculum, and delivering lessons are necessary for students to master skills that can be applied in various domains and industries (Marnewick, 2023).

Several studies indicate an improvement in learning through the use of PjBL. According to Garmendia et al. (2021), the use of PjBL can improve academic results and contribute to the development of generic competencies. This is evident in independent learning processes, self-reflection, teaching skills, instructor roles, learner-focused learning, constructivism, group training, group activities, knowledge sharing, proposed activities, instructor evaluation, joint evaluation, and self-evaluation. In the study by Rahayu & Fauzi (2020), it is stated that the learning process, with the right choice of learning models, the use of information and communication technology in learning, and learner-centered learning, is engaging and involves students more effectively by incorporating individual or group projects that can have a positive impact on students' resilience despite online-based learning. The research by Pan et al. (2019) also shows that the PjBL model positively contributes to increasing student motivation in the learning process.

The integration of project-based learning has the potential to profoundly reshape the classroom dynamics for both educators and learners. It has the capacity to alter teaching methodologies, redefine learning approaches, and transform the dynamics of interaction between teachers and students. When forming project teams, teachers also need to consider their size. According to Chen & Yang (2019), they mention that having groups with three to six students promotes greater interpersonal engagement but extends the duration spent on communication and coordination. As the group size expands, it becomes more difficult to guarantee active participation from all members and maintain a significant presence in team

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discussions. This enables the emergence of other factors influencing the effectiveness of PjBL utilization. The success of employing a learning model is evident in the efficacy of instruction, student academic achievements, and alterations in student behavior encompassing both cognitive and psychomotor dimensions. The primary determinants influencing an individual's social conduct encompass (1) the behavior and traits of others, (2) cognitive processes, (3) environmental factors, and (4) culture. A person's social attitudes can also be manifested through their form and social conduct (Febriana, 2017). If the majority of students in a specific class exceed expectations on standardized achievement tests, the learning model is deemed effective, conversely, if most students perform below expectations, the learning model may be perceived as less effective (Maros et al., 2023).

One field of study with a relatively high level of complexity in understanding is Accounting. It is due to the fact that accounting education comprises both theoretical and applied aspects. With the rapid development of globalization and technology, mastery of accounting applications becomes crucial. Proficiency in theoretical accounting skills and the quality of applied accounting skills are closely related to the learning models adopted by students (Sumarna & Amalia, 2022). Common challenges faced by students when studying accounting include a lack of understanding of learning materials, lack of focus, and low learning motivation. Additionally, educators often fail to employ activities to explore and validate concepts in education. The lack of variation in teaching models according to the material taught results in students' low learning outcomes, as evidenced by their academic performance (Bahari et al., 2022). There is a need for creativity on the part of accounting teachers to make accounting education enjoyable and engaging in the classroom (Suyatmini et al., 2019).

The development of skills in accounting learning faces a significant shortage. Teachers are required to use models that align with accounting practices in professional performance training (Duarte Silva & Araújo Leal, 2021; Kim, 2022). The Project-Based Learning (PjBL) model can enhance students' problem-solving skills, critical thinking, as well as interpersonal skills in accounting learning (Carrasco et al., 2018). The use of PjBL is expected to assist teachers in improving education, especially in accounting learning. With quality education, it is hoped that competence and knowledge in the competitive Indonesian society can be enhanced (Nafisa et al., 2021).

This study aims to explore the success of using PjBL in the accounting learning material, particularly in the accounting of service, trade, and manufacturing companies. It is measured based on the effectiveness, learning outcomes, and students' skills in accounting education. By continually developing innovative learning models, we not only improve the quality of education but also provide better opportunities for students to compete in an ever-changing world. This research is compelling as it will provide valuable guidance for educators and curriculum planners in understanding whether PjBL is an effective approach in the context of accounting education. This study is not just about measuring the success of a particular educational approach but also about building a strong bridge between the education and industry worlds, helping students become more skilled, knowledgeable, and ready for success in their accounting careers. Thus, this research plays a significant role in evaluating the current education system.

Research Method

This study used a qualitative approach with a case study method to collect extensive and detailed data. The case study method was chosen because it could thoroughly, efficiently,

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and conclusively explain specific problems, incidents, and situations (George, 2019). This model was employed to address the researcher's focus on analyzing the success of using the Project-Based Learning (PjBL) model in the elements of Service, Trading, and Manufacturing Company Accounting.

The research object was SMKN 1 Banyudono located at JL. Kuwiran No. 3 Banyudono Boyolali, Kuwiran, Kec. Banyudono, Kab. Boyolali, Central Java Province. Key informants include students majoring in Financial and Institutional Accounting, Accounting Teachers, and the School Principal. The criteria for teacher informants were those who had implemented the PjBL learning model in the elements of Service, Trading, and Manufacturing Company Accounting. Meanwhile, student criteria include having experience learning with PjBL in the mentioned accounting elements.

Data collection techniques included observation, interviews, and documentary studies. Observation would verify and support interview results to ensure alignment with actual conditions. Documentary studies also supported how the interview and observation processes were conducted. Data validity was ensured through triangulation of techniques and sources. Triangulation of techniques means using different data collection methods to obtain data from the same source, while triangulation of sources means using different data collection methods to obtain data from various diverse sources. The collected data would be analyzed through three activities: data reduction, data presentation, and drawing conclusions or verification (Miles et al., 2014).

Results and Discussion

Usage of Project-Based Learning

Project-Based Learning (PjBL) becomes a distinctive feature of the Merdeka Curriculum due to its student-centered nature. SMKN 1 Banyudono employs this model due to curriculum demands and alignment with the school's vision of becoming a Vocational High School that produces graduates with character, competence, intelligence, and independence. Based on Table 1, the implementation of PjBL at SMKN 1 Banyudono enables students to practice using reasoning to address issues, formulate hypotheses in problem-solving based on simple concepts, and enhance critical and contextual abilities.

Table 1. Interview Results Related to the Use of Project-Based Learning

Informants	Interview results
School Principal	"The use of PjBL in learning should proceed continuously because in every subject, activities reflecting students' creativity, enhancing critical thinking, and being contextual should be evident. Hence, teachers are encouraged to adopt this model." "With PjBL, students can be trained to use reasoning to address issues, formulate hypotheses in problem-solving based on simple concepts, and encourage them to demonstrate creativity." "Of course, we support the use of the PjBL model, starting from planning and supporting curriculum preparation, providing the IHT internship program for teachers, and involving the business world in decision-making to align with the current situation."
Accounting Teacher	"My motivation for using PjBL is due to the demands of the independent curriculum that centers on students. Therefore, students must be active, capable of critical thinking in learning, and teachers act as facilitators." "In my opinion, the school's support is effective and very useful in

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> enhancing my ability to develop PjBL further. I previously participated in the IHT program placed at BMT, where I gained a deeper understanding of the current state of the industry. I also teach students about what I have learned."

The results of the interview with the school principal in Table 1 indicate that the school will plan and support the implementation of the PjBL model in the curriculum and learning by preparing the curriculum, involving relevant parties, policy-making from the provincial education office, school committees, industry partners, teacher human resources, and infrastructure. The school also conducts In-House Training (IHT) by training educators and industry practitioners. The school collaborates with industry partners to align projects created by teachers with current industry needs.

In addition to the school, teachers, as facilitators of the learning process, prepare themselves by continuously understanding the curriculum through continuous training via the Merdeka Mengajar platform from the Ministry of Education and Culture of the Republic of Indonesia. Teachers engage in self-training, community collaboration, competence reflection, and engagement with community organizations to develop themselves. According to teacher interviews, effective school support enhances teachers' skills in understanding PjBL, such as through workshops on Merdeka Curriculum assessment with PjBL material. With such support, teachers can maximize the use of PjBL and reduce the likelihood of failures in its implementation.

Implementation in the Elements of Service, Trading, and Manufacturing Company Accounting

The deductive logic characteristic of accounting science necessitates practical application for students to understand concepts deeply. To reduce the risk of failure in PjBL implementation, teachers must conduct thorough planning. Before using PjBL, teachers calculate and predict its suitability of PjBL with students' understanding levels. Through this planning, the failure rate is expected to decrease and align with students' capabilities.

The results of the interviews conducted with accounting teachers regarding the implementation of PjBL used in the elements of Service, Trade, and Manufacturing Company Accounting are still relatively straightforward. Students are divided into groups and asked to visit service businesses in the vicinity. Afterward, students request evidence of transactions, such as sales, which they then analyze and enter into journals corresponding to the transaction evidence. Thus, students can directly interact with external parties to obtain transaction evidence. Although the nature of the project is relatively simple, teachers express a desire to continue developing PjBL. In interviews, teachers state a willingness to maximize PjBL implementation through collaboration across subjects at SMK, such as collaboration between Accounting, Mathematics, or English. Such collaboration has been implemented in larger vocational schools and has produced a product. This collaboration can reduce costs, provide opportunities for students to enhance creativity in learning, and make it easier for other teachers to assess students.

Assessment of Success Level

The success level can be seen from the positive impact of the PjBL model on student learning outcomes and overall learning quality, such as report card results, student interactions, and student understanding of concepts. The school principal, in an interview, states that the positive impact of the PjBL model can be observed in a significant improvement in the school's quality report. This improvement has also increased community enthusiasm to enroll their children at SMKN 1 Banyudono after observing school graduates.

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The success of PjBL can be measured through high student motivation, active participation in learning, and the production of high-quality work.

Table 2. Interview Results Related to the Assessment of Success Level

Informants	Interview results
School Principal	"The positive impact of using PjBL can be observed from a significant improvement in the school's quality report. Additionally, there is enthusiasm among the community to enroll their children in SMKN 1 Banyudono after observing its graduates."
	"Students experience high motivation, feel active in their learning, and produce high-quality work."
Accounting Teacher	"In interactions, students become more joyful. They adapt to their individual creativity and actively engage in group competitions to excel."
	"The indicators used to measure student success are adjusted to the implementation plan of the learning and the utilized assessment system. Assessment is measured not only based on project outcomes but also on how the process of the project unfolds."
Student 1	"I feel there is indeed an improvement in my report card. This is because of the guidance provided by the teachers in helping me understand accounting concepts."
Student 3	"There is a newfound motivation to learn new things and a sense of challenge to solve problems."
	"Through collaboration with my peers, I can learn together and observe the personalities of other students while working together."
Student 5	"It is true that my grades have started to improve, although not significantly. However, PjBL has truly helped me to understand accounting concepts and the current state of the industry. This gives me insights for venturing into the field."

In the interview results presented in Table 2, it is evident that PjBL brings substantial benefits in facilitating students' understanding of accounting concepts. That is because PjBL's nature is highly relevant to the real world. This practicality not only offers a profound view of theoretical concepts but also provides a concrete illustration of how students will face challenges in actual work environments. Student involvement in PjBL-guided projects also creates a strong understanding of how these concepts can be applied in an industrial context. By combining academic concepts with practical applications, PjBL brings students closer to the reality of work and provides a solid foundation for the development of their professional careers. Students are tasked directly with solving problems independently or in groups. Thus, PjBL stimulates the development of independent attitudes and critical thinking skills in students. Student testimonials also highlight the significant contribution of PjBL to their understanding, providing strong evidence of the effectiveness of this model.

In addition to assessing how students understand accounting concepts, teachers also measure criteria and indicators to evaluate the success of using PjBL in the elements of Service, Trading, and Manufacturing Company Accounting. Assessment indicators will be adjusted to the Learning Implementation Plan and syntax used in the project. Teachers view the success of this project in improving learning outcomes by stating that the results of yesterday's project were satisfactory and could be included in e-performance. Students also become more active, not solely dependent on teachers, and become independent and creative, improving the quality of students to enter the real world. The improvement in results is felt

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by students who are active in learning, as expressed by students who may not see significant grade improvements but feel an enhancement in learning outcomes.

Teachers face many demands in presenting enjoyable, peaceful, child-friendly, and bullying-free learning. It aims to create a more open emotional closeness, facilitate the implementation of differentiated learning, and encourage increased student motivation. This model is often misunderstood as providing total freedom to students, whereas teachers still play the role of facilitators guiding students. In this context, students are encouraged to compete competitively between groups to achieve optimal learning outcomes. The importance of interaction between students becomes the focus of learning, indicating that the success and effectiveness of the PjBL model depend heavily on group dynamics. Teachers, as facilitators, convey that PjBL can boost students' confidence, promote independence, and empowerment. It is expected that through PjBL, students not only enhance self-confidence but also gain motivation to improve their aspirations for education or careers in the future. Therefore, teachers need to have effective facilitation skills so that the interaction between teachers and students can proceed as expected.

Challenges Faced

With the implementation of the PjBL model, several challenges arise that must be faced by schools, teachers, and students. These challenges involve various aspects of the learning process. Based on several conducted interviews, the following are the challenges faced by the school, students, and teachers:

1) Time Consumption: Completing a project takes a considerable amount of time. Teachers will often request students to work on projects collaboratively, necessitating students to go into the field and engage in discussions.
2) Resistance to Change: Many teachers feel comfortable with traditional classrooms where educators play a central role. This is because teachers may perceive no significant difference between using the traditional model and the PjBL model.
3) Diverse Student Characteristics: Students have different characteristics, influencing the fair grouping of students. It's undeniable that students may complain about being in groups that do not align with their preferences. However, this will ultimately help students in learning to differentiate.
4) Lack of Student Motivation: Sometimes, students lack motivation in project work. Therefore, teachers continue to guide the project's progress to monitor and provide direction.

In the learning process, students may face difficulties when working in groups. To address this, teachers ask for documentation related to the project's implementation. Students are required to present the process through proposals, photos/videos during the process, step-by-step reports according to the requirements, and the final product. Meanwhile, teachers document this process through formative reports that align with the created project. Teachers explain that this documentation is stored in the teacher's e-performance. Through existing documentation, teachers can effectively monitor and evaluate group performance while students are working on the project. Teachers can also provide feedback in the form of more directed and specific guidance based on the available documentation. Conversely, students also have better access to understanding the assessment and expectations of teachers through this documentation. It provides a more holistic monitoring dimension, ensuring that project-based learning not only serves as an evaluation tool but also as a continuous development tool for each individual in the class.

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Discussion

This research fundamentally focuses on analyzing the success of Project-Based Learning (PjBL) implementation at SMKN 1 Banyudono, aiming to produce graduates with character, competence, intelligence, and independence. Project-based learning demonstrates a moderate to substantial positive influence on students' academic achievements when compared to conventional teaching approaches (Chen & Yang, 2019). Project-based learning underscores an approach that inspires both educators and learners: education should be apparent, relevant to the community, tackle intricate and meaningful issues, and consistently portray learners as individuals with the potential for creativity, intelligence, and the ability for profound intellectual engagement (Miller et al., 2021). Through the PjBL model, students are engaged in reasoning exercises, hypothesis formulation, and the development of critical and contextual skills, aligning with the characteristics of accounting science. PjBL assessment provides students with opportunities to enhance interpersonal communication, information literacy, collaboration, active leadership, independence, and responsibility in the learning process (Widiana et al., 2021; Maros et al., 2023).

When educators opt for PjBL, they encounter distinct challenges, including embracing a constructivist approach, adopting novel teaching strategies, selecting curriculum and topics, managing and designing PjBL, and evaluating its collaborative nature (Rambe, 2018; Aditya Dharma, 2019). To address these challenges, comprehensive planning and support emerge from SMKN 1 Banyudono to implement PjBL. Support includes curriculum planning, with participation from various parties such as provincial offices, school committees, the industrial sector, teachers, and the provision of facilities. Teachers also undergo In-House Training (IHT) and training through the Merdeka Mengajar platform, serving as the main instruments to prepare the school for PjBL implementation. Learning preparation is a situation where educators can carefully plan everything to respond to students during the learning process, creating a comfortable, effective, and efficient learning atmosphere (Rohmah et al., 2019, 2021). Collaboration with the industrial sector and project adjustment to real situations is also a focus, demonstrating the commitment of the school to optimizing PjBL. The curriculum planning conducted by the school can help teachers master and apply teaching skills to achieve learning goals and implement PjBL (Rahmadany & Achadiyah, 2017; Amamou & Cheniti-Belcadhi, 2018; Wicaksono et al., 2021).

SMKN 1 Banyudono supports the use of PjBL in learning because of its relevance to real-world situations. PjBL, in the context of learning involving practice or practical activities, is an effective solution so that students involved can better apply their learning outcomes to the real world, serving as a good training ground for applying learning outcomes (Weber, 2016; Amamou & Cheniti-Belcadhi, 2018). Students involved in PjBL feel that they are developing instrumental, systemic, and interpersonal skills, especially related to decision-making and problem-solving. As a vocational school, SMKN 1 Banyudono is oriented towards equipping students with skills for the workforce, such as decision-making and problem-solving skills in accounting. Identifying and solving problems in the counseling process and unusual situations, as well as the ability to apply problemsolving techniques in the consultation process, can enhance students' critical thinking.

In the elements of Service, Trading, and Manufacturing Company Accounting, the use of PjBL at SMKN 1 Banyudono is considered successful. That is because of the understanding of accounting concepts, improvement of skills, and perceived improvement in learning outcomes by the school, teachers, and students. This result is reinforced by the research of Indrayati et al. (2021), showing that the use of PjBL can improve accounting

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competence in understanding concepts, theoretical knowledge, and the practice or skills of problem-solving and communication with the real world. This research is also supported by Carrasco et al. (2018), stating that accounting must consider real situations, continuous changes in society and the environment, and adaptability, so that students can feel this approach in learning. Prasetyo & Hernando (2023) state that the effectiveness of PjBL stimulates students to be creative and innovative in solving problems to understand accounting concepts. Testimonials from teachers and students at SMKN 1 Banyudono also indicate that PjBL in Service, Trading, and Manufacturing Company Accounting makes a substantial contribution to understanding accounting concepts, equipping students with practical skills, and stimulating the development of independent attitudes and critical thinking.

The projects designed by teachers at SMKN 1 Banyudono for Service, Trading, and Manufacturing Company Accounting are still relatively simple. The projects require students to interact with the industrial sector to gather evidence of transactions, which are then analyzed and recorded in appropriate journals. Although simple, teachers express a desire to develop PjBL, including through interdisciplinary collaboration, such as between Accounting, Mathematics, or English. Collaborative learning utilizing technology and subjects can emphasize trust in group cooperation to achieve expected goals (Srivastava, 2020). Students acquire core learning concepts that require the application of contextual knowledge through collaborative projects. Projects involving multimedia and technology can be easily done in group work, encouraging collaboration and cooperation (Shin, 2018). Students at SMKN 1 Banyudono can learn about differentiation concepts by collaborating and cooperating in the teams structured by teachers in the project.

As accounting teachers who act as facilitators or instructors during the learning process, they not only need to actively accompany the learning process but also have a responsibility to oversee every activity. When PjBL takes place, the role of the teacher as a guide is crucial. Without adequate guidance from the instructor, PjBL implementation can fail. This is emphasized by Hamiza et al. (2017)and Garmendia et al. (2021), highlighting the importance of the instructor's influence in careful planning and good project management. In addition, the teacher's competence in applying question levels and questioning strategies plays a crucial role in motivating and encouraging student involvement. Reflianto et al. (2022) underline that the teacher's ability to motivate students in independent learning can enhance students' skills and knowledge.

In the learning process, the aspects of enjoyment, stimulation of interest, and motivation of students are key to the success of PjBL. From completing material tasks to independent practice at home, all learning activities must be designed to stimulate the interest and motivation of students. This aligns with Zen et al.'s (2022) findings on the importance of creating a fun and motivating learning atmosphere. Feedback given to students also has a significant impact on improving their performance. With prompt and accurate feedback, students can correct their mistakes in their learning in a timely manner. Henry et al. (2012) state that good feedback can help students apply their learning to the next problem module. Therefore, the role of SMKN1 Banyudono teachers in providing feedback on student project performance is key to ensuring the success of student learning.

To prevent incidents that make students inactive in the project, accounting teachers at SMKN 1 Banyudono document in various ways. Documentation of the project process through proposals, photos/videos during the process, step-by-step reports according to the requirements, and the final product is done by students. Meanwhile, teachers document this

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process through formative reports that align with the created project. Communication through this documentation will show progress and improve skills in various aspects. Communication is one of the skills that must be cultivated in future professional accounting education so that they can make creative presentations, improve inductive and deductive reasoning, and critically analyze the use of active methodologies in complex accounting subjects (Carrasco et al., 2018).

By applying the Project-Based Learning (PjBL) approach, SMKN 1 Banyudono has not only succeeded in creating an innovative learning environment but has also produced graduates ready to face complex challenges in the industrial world. PjBL provides a foundation for students to develop practical skills and knowledge relevant to industrial needs. Through projects involving direct interaction with the working world, students not only gain a deep understanding of academic concepts but also sharpen soft skills such as problem-solving, critical thinking, teamwork, and communication. The development of soft skills in students needs to be enhanced so that students can manage themselves well and encourage hard skills to function in the workforce (Suranto et al., 2023). SMKN 1 Banyudono not only plays a role as an educational institution but also as a place that can shape graduates with high competitiveness and readiness to contribute to the dynamic industrial world. The PjBL approach is not only a learning model but also a philosophy inherent in every aspect of learning in the school, bringing positive impacts on the development of students' competencies and characters.

Conclusion

The utilization of Project-Based Learning (PjBL) at SMKN 1 Banyudono significantly enhances and improves students' learning outcomes, especially in the elements of Service, Trading, and Manufacturing Company Accounting. The success factors of PjBL include support in the form of infrastructure preparation, curriculum development, and policy-making involving relevant parties such as the provincial office, school committee, the industrial sector (DUDI), and teachers. The school also conducts In-House Training (IHT) for educators and industry professionals to assist teachers in designing PjBL to enable students to achieve learning objectives. The implementation of PjBL in the elements of Service, Trading, and Manufacturing Company Accounting, although still relatively simple, proves to be beneficial in helping students understand accounting concepts, improving students' learning outcomes, and enhancing both soft and hard skills. Challenges faced by both teachers and students can be overcome with strong support from the school and well-thought-out planning by teachers. Through the PjBL approach, schools can create an innovative learning environment, better preparing graduates for the industrial world, and positively impacting students' learning outcomes and the quality of education.

Recommendation

The recommendations from this research involve several strategic steps. Firstly, there is a need for continuous evaluation of the Project-Based Learning (PjBL) implementation to deepen the understanding of its impact. Secondly, further developing collaboration with relevant stakeholders is essential to strengthen support for infrastructure, curriculum development, and policies. The final step includes enhancing the complexity of PjBL, tailored to the students' readiness level and available resources. Meanwhile, the focus on teacher training, both internally and involving industry professionals, needs to be maintained and expanded. As a future research step, it is recommended to investigate more

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comprehensively the implementation of PjBL across various subjects, explore the long-term impacts on graduates' career success, and develop practical guidelines for teachers to design and implement PjBL more effectively, thereby bringing optimal benefits to students' learning outcomes across various curriculum elements. As a future research step, it is recommended to investigate more comprehensively the implementation of PjBL across various subjects, explore the long-term impacts on graduates' career success, and develop practical guidelines for teachers to design and implement PjBL more effectively, thereby bringing optimal benefits to students' learning outcomes across various curriculum elements.

References

Aditya Dharma, I. M. (2019). Pengembangan Buku Cerita Anak Bergambar dengan Insersi Budaya Lokal Bali terhadap Minat Baca dan Sikap Siswa Kelas V SD Kurikulum 2013. *Journal for Lesson and Learning Studies*, *2*(1), 53–63. https://doi.org/10.23887/jlls.v2i1.17321

Amamou, S., & Cheniti-Belcadhi, L. (2018). Tutoring In Project-Based Learning. *Procedia Computer Science*, *126*, 176–185. https://doi.org/10.1016/j.procs.2018.07.221

Bahari, A., Azmi, W., & Anshar, A. L. (2022). Effect of Project-Based Learning Model on Student's Performance at Accounting Information System Course. *Proceedings of the 4th International Conference on Educational Development and Quality Assurance (ICED-QA 2021)*, *650*, 108–113. https://doi.org/10.2991/assehr.k.220303.021

Baser, D., Ozden, M. Y., & Karaarslan, H. (2017). Collaborative project-based learning: an integrative science and technological education project. *Research in Science & Technological Education*, *35*(2), 131–148. https://doi.org/10.1080/02635143.2016.1274723

Becerra-Posada, T., García-Montes, P., Sagre-Barbosa, A., Carcamo-Espitia, M. I., & Herazo-Rivera, J. D. (2022). Project-based Learning: The Promotion of Communicative Competence and Self-confidence at a State High School in Colombia. *HOW*, *29*(2), 13–31. https://doi.org/10.19183/how.29.2.560

Carrasco, A., Donoso, J. A., Duarte, T., Hernández, J., & López Gavira, R. (2018). The effectiveness of the project-based learning (PrjBL) approach in undergraduate accounting education. *EDUCADE - Revista de Educación En Contabilidad, Finanzas y Administración de Empresas*, *9*, 659–683. https://doi.org/10.12795/EDUCADE.2018.i09.05

Chen, C.-H., & Yang, Y.-C. (2019). Revisiting the effects of project-based learning on students' academic achievement: A meta-analysis investigating moderators. *Educational Research Review*, *26*, 71–81. https://doi.org/10.1016/j.edurev.2018.11.001

Cresswell-Yeager, T. (2021). Forming, storming, norming, and performing: Using a semester-long problem-based learning project to apply small-group communication principles. *Communication Teacher*, *35*(2), 155–165. https://doi.org/10.1080/17404622.2020.1842476

Duarte Silva, T., & Araújo Leal, E. (2021). Project-based learning in an accounting graduate program. *Revista Catarinense Da Ciência Contábil*, *20*, e3175. https://doi.org/10.16930/2237-7662202131752

Febriana, R. (2017). The Effectiveness of Projects Based Learning on Students' Social Attitude And Learning Outcomes. *Jurnal Pendidikan Teknologi Dan Kejuruan*,

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E-ISSN: 2722-4627
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23(4), 374–382. https://doi.org/https://doi.org/10.21831/jptk.v23i4.14878

Garmendia, M., Aginako, Z., Garikano, X., & Solaberrieta, E. (2021). Engineering instructor perception of problem- and project- based learning: Learning, success factors and difficulties. *Journal of Technology and Science Education*, *11*(2), 315. https://doi.org/10.3926/jotse.1044

George, A. L. (2019). Case Studies and Theory Development: The Method of Structured, Focused Comparison. In *A Pioneer in Political and Social Sciences* (pp. 191–214).

Hamiza, W. W., Williams, A., & Sher, W. (2017). Introducing PBL in Engineering Education: Challenges Lecturers and Students Confront. *International Journal of Engineering Education*, *33*(3), 974–983. https://research.avondale.edu.au/edu_papers/111

Hasan, M., Arisah, N., Ratnah S, Ahmad, M. I. S., & Miranda. (2023). Experiential Learning Model for the Development of Collaborative Skills through Project Based Learning Practicum. *JPI (Jurnal Pendidikan Indonesia)*, *12*(2), 340–349. https://doi.org/10.23887/jpiundiksha.v12i2.57376

Henry, H. R., Tawfik, A. A., Jonassen, D. H., Winholtz, R. A., & Khanna, S. (2012). "I Know This is Supposed to be More Like the Real World, But . . .": Student Perceptions of a PBL Implementation in an Undergraduate Materials Science Course. *Interdisciplinary Journal of Problem-Based Learning*, *6*(1). https://doi.org/10.7771/1541-5015.1312

Indrayati, Rahmat, B., Mulyono, I., & Slamet. (2021). An Innovative Learning In Accounting Information System Course Using Discovery Learning And Project Based Learning At State Polytechnic Of Malang Indonesia. *PalArch's Journal of Archaeology of Egypt / Egyptology*, *18*(4), 6958–6970. https://archives.palarch.nl/index.php/jae/article/view/7366

Kadi, T., & Awwaliyah, R. (2017). Inovasi Pendidikan : Upaya Penyelesaian Problematika Pendidikan Di Indonesia. *Jurnal Islam Nusantara*, *1*(2), 144–155. https://doi.org/10.33852/jurnalin.v1i2.32

Kasman, K., & Lubis, S. K. (2022). Teachers' Performance Evaluation Instrument Designs in the Implementation of the New Learning Paradigm of the Merdeka Curriculum. *Jurnal Kependidikan: Jurnal Hasil Penelitian Dan Kajian Kepustakaan Di Bidang Pendidikan, Pengajaran Dan Pembelajaran*, *8*(3), 760. https://doi.org/10.33394/jk.v8i3.5674

Kim, M. S. (2022). Effects of Online Project-Based Learning Application: A Case of Engineering Accounting Course. *Journal of Engineering Education Research*, *25*(2), 13–21. https://www.koreascience.or.kr/article/JAKO202211757579228.page%0Ahttps://www.koreascience.or.kr/article/JAKO202211757579228.pdf

Lestari, A. S. (2019). The Development of Web Learning Based on Project in The Learning Media Course at IAIN Kendari. *Jurnal Pendidikan Islam*, *5*(1), 39–52. https://doi.org/10.15575/jpi.v5i1.2909

Marnewick, C. (2023). Student experiences of project-based learning in agile project management education. *Project Leadership and Society*, *4*(March), 100096. https://doi.org/10.1016/j.plas.2023.100096

Maros, M., Korenkova, M., Fila, M., Levicky, M., & Schoberova, M. (2023). Project-based learning and its effectiveness: evidence from Slovakia. *Interactive Learning Environments*, *31*(7), 4147–4155. https://doi.org/10.1080/10494820.2021.1954036

Vol. 11 No. 2 : April 2024
E-ISSN: 2722-4627
pp. 238-251

Mega Elvianasti, Festiyed, Yerimadesi, Eka Kartikawati, & Zulherman. (2022). Research Trends in PjBL (Project-Based Learning) at Indonesian Journal of Biology Education. *Jurnal Iqra' : Kajian Ilmu Pendidikan*, *7*(2), 105–119. https://doi.org/10.25217/ji.v7i2.2464

Miles, M. B., Huberman, M. A., & Saldana, J. (2014). *Qualitative Data Analisis. A Methods Sourcebook.* America: SAGE Publications.

Miller, E. C., Severance, S., & Krajcik, J. (2021). Motivating Teaching, Sustaining Change in Practice: Design Principles for Teacher Learning in Project-Based Learning Contexts. *Journal of Science Teacher Education*, *32*(7), 757–779. https://doi.org/10.1080/1046560X.2020.1864099

Nafisa, N. N., Kanzunnudin, M., & Roysa, M. (2021). Nilai-Nilai Pendidikan Dalam Novel Cinta Suci Zahrana Karya Habiburrahman El Shirazy. *GHANCARAN: Jurnal Pendidikan Bahasa Dan Sastra Indonesia*, *2*(2), 111–124. https://doi.org/10.19105/ghancaran.v2i2.3705

Nursalam, N., Sulaeman, S., & Latuapo, R. (2023). Implementasi Kurikulum Merdeka melalui Pembelajaran Berbasis Proyek pada Sekolah Penggerak Kelompok Bermain Terpadu Nurul Falah dan Ar-Rasyid Banda. *Jurnal Pendidikan Dan Kebudayaan*, *8*(1), 17–34. https://doi.org/10.24832/jpnk.v8i1.3769

Pan, G., Seow, P.-S., & Koh, G. (2019). Examining learning transformation in project-based learning process. *Journal of International Education in Business*, *12*(2), 167–180. https://doi.org/10.1108/JIEB-06-2018-0022

Prasetyo, E., & Hernando, R. (2023). Project-based learning system model in courses advanced accounting. *Proceeding of the International …*, *1*, 194–200. https://doi.org/10.20885/InCAF.vol1.art22

Rahayu, G. D. S., & Fauzi, M. R. (2020). The Effect of the Project-Based Learning Model on Students' Resilience During the Pandemic Covid-19. *JPI (Jurnal Pendidikan Indonesia)*, *9*(4), 711. https://doi.org/10.23887/jpi-undiksha.v9i4.27390

Rahmadany, M., & Achadiyah, B. N. (2017). Pengembangan Model Pembelajaran Saintifik pada Mata Pelajaran Akuntansi Perusahaan Dagang untuk Siswa Kelas XI Jurusan Akuntansi. *Jurnal Pendidikan Akuntansi Indonesia*, *XV*(2), 1–11.

Rambe, R. N. K. (2018). Penerapan Strategi Index Card Match Untuk Meningkatkan Hasil Belajar Siswa Pada Mata Pelajaran Bahasa Indonesia. *JURNAL TARBIYAH*, *25*(1), 93–124. https://doi.org/10.30829/tar.v25i1.237

Rees Lewis, D. G., Gerber, E. M., Carlson, S. E., & Easterday, M. W. (2019). Opportunities for educational innovations in authentic project-based learning: understanding instructor perceived challenges to design for adoption. *Educational Technology Research and Development*, *67*(4), 953–982. https://doi.org/10.1007/s11423-019-09673-4

Reflianto, Setyosari, P., Kuswandi, D., & Widiati, U. (2022). English teachers' competency in flipped learning: question level and questioning strategy in reading comprehension. *International Journal of Instruction*, *15*(1), 965–984.

Rohmah, W., Efita Sari, D., & Wulansari, A. (2019). Pembelajaran Berbasis Teaching Factory di SMK Negeri 2 Surakarta. *Jurnal Pendidikan Ilmu Sosial*, *29*(2), 78–85. https://doi.org/10.23917/jpis.v29i2.9171

Rohmah, W., Suyatmini, S., Hasanah, U. U., & Setiyana, B. E. (2021). Pola Pembelajaran Akuntansi Sekolah Menengah Kejuruan Dengan Mengadopsi Teaching Factory. *Jurnal Pendidikan Ilmu Sosial*, *31*(2), 74–81.

https://doi.org/10.23917/jpis.v31i2.15395

Santos, C., Rybska, E., Klichowski, M., & Jankowiak, B. (2023). ScienceDirect Science education through project-based learning : a case study. *Procedia Computer Science*, *219*(2022), 1713–1720. https://doi.org/10.1016/j.procs.2023.01.465

Shin, M.-H. (2018). Effects of Project-based Learning on Students' Motivation and Self-efficacy. *English Teaching*, *73*(1), 95–114. https://doi.org/10.15858/engtea.73.1.201803.95

Sri Parnayathi, I. G. A. (2020). Penggunaan Metode Pembelajaran Team Quiz sebagai Upaya Meningkatkan Prestasi Belajar IPA. *Journal of Education Action Research*, *4*(4), 473. https://doi.org/10.23887/jear.v4i4.28642

Srivastava, P. R. (2020). Communication, Collaboration & Trust: Interpersonal Challenges in Virtual Collaboration Team. *International Journal of English Literature and Social Sciences*, *5*(4), 1273–1278. https://doi.org/10.22161/ijels.54.66

Sumarna, A. D., & Amalia, D. (2022). The Impacts of Project Based Learning Method on the Basic Accounting Competencies. *Journal of Applied Accounting and Taxation*, *7*(2), 43–53. https://doi.org/10.30871/jaat.v7i2.4354

Suranto, S., Ristiny, R., Amanda, B., Mustofa, R. H., & Gano-an, J. C. (2023). Soft Skill Values in Basic Accounting Learning in Accounting Department of Vocational High Schools. *Edunesia: Jurnal Ilmiah Pendidikan*, *4*(2), 817–829. https://doi.org/10.51276/edu.v4i2.409

Suyatmini, S., Sutama, S., Rohmah, W., & Asmawati, T. (2019). Pengembangan penilaian pembelajaran akuntansi kontekstual berbasis lesson study di SMA. *Jurnal Pendidikan Ilmu Sosial*, *29*(1), 34–41. https://doi.org/10.23917/jpis.v29i1.8241

Walidah, Z., Wijayanti, R., & Affaf, M. (2020). Pengaruh Model Pembelajaran Flipped Classroom (FC) terhadap Hasil Belajar. *Edumatica | Jurnal Pendidikan Matematika*, *10*(2), 71–77.

Weber, B. A. (2016). The Effectiveness of Participation in a Project-based Learning Project on At-risk Student Self-Efficacy. *Doctoral Dissertation, Portland State University*.

Wicaksono, S. R., Lubis, M. S. A., & Suprapto, E. (2021). Improvisation of Project based Learning with Combination of Collaborative Learning As a Rapid Response to Pandemic Learning. *Jurnal Iqra' : Kajian Ilmu Pendidikan*, *6*(2), 215–224. https://doi.org/https://doi.org/10.25217/ji.v6i2.1408

Widiana, I. W., Tegeh, I. M., & Artanayasa, I. W. (2021). The Project-Based Assessment Learning Model That Impacts Learning Achievement and Nationalism Attitudes. *Jurnal Cakrawala Pendidikan*, *40*(2), 389–401. https://doi.org/10.21831/cp.v40i2.38427

Zen, Z., Reflianto, Syamsuar, & Ariani, F. (2022). Academic achievement: the effect of project-based online learning method and student engagement. *Heliyon*, *8*(11), e11509. https://doi.org/10.1016/j.heliyon.2022.e11509

