

Design and Development of Project-Based English Learning Modules for Senior High School 1 Hiliduho

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ABSTRACT

This research aimed to design and develop project-based English learning modules (PBL) for SMA Negeri 1 Hiliduho. The study used the Research and Development (R&D) method, based on a simplified Borg and Gall model consisting of four stages: data collection, module design, development and validation, and limited implementation. Data were gathered through interviews, observations, and questionnaires, and analyzed using pre- and post-tests, as well as teacher and student feedback. The findings showed that the modules effectively enhanced students' English proficiency, particularly in speaking and writing skills, with an average score increase of 20%. Additionally, 85% of students and 90% of teachers provided positive feedback on the modules. This study contributed to the implementation of project-based learning in English as a Foreign Language (EFL) contexts, particularly in rural Indonesian high schools.

Keywords: PBL, English Language Learning, Module

ABSTRAK

Penelitian ini bertujuan untuk merancang dan mengembangkan modul pembelajaran Bahasa Inggris berbasis proyek (PBL) untuk SMA Negeri 1 Hiliduho. Studi ini menggunakan metode Penelitian dan Pengembangan (R&D), yang berdasarkan pada model Borg dan Gall yang disederhanakan yang terdiri dari empat tahap: pengumpulan data, desain modul, pengembangan dan validasi, serta implementasi terbatas. Data dikumpulkan melalui wawancara, observasi, dan kuesioner, dan dianalisis menggunakan pre-test dan post-test, serta umpan balik dari guru dan siswa. Hasil penelitian menunjukkan bahwa modul tersebut secara efektif meningkatkan kemampuan Bahasa Inggris siswa, terutama dalam keterampilan berbicara dan menulis, dengan peningkatan rata-rata skor sebesar 20%. Selain itu, 85% siswa dan 90% guru memberikan umpan balik positif terhadap modul tersebut. Penelitian ini berkontribusi pada implementasi pembelajaran berbasis proyek dalam konteks Bahasa Inggris sebagai Bahasa Asing (EFL), khususnya di sekolah menengah atas di daerah pedesaan Indonesia.

Kata Kunci : PBL, Pembelajaran Bahasa Inggris, Modul

INTRODUCTION

In recent years, the integration of project-based learning (PBL) in language education has gained significant attention as a pedagogical approach that enhances students' critical thinking, collaboration, and real-world application of language skills (Thomas, 2020). At SMA Negeri 1 Hiliduho, a public senior high school in Indonesia, English language instruction has traditionally relied on conventional methods, which often emphasize rote memorization over active engagement. While these methods may cover grammatical structures and vocabulary, they frequently fall short in fostering communicative competence

and student autonomy (Larsen-Freeman, 2018). This gap highlights the urgent need for innovative teaching materials that align with global educational trends and Indonesia's Kurikulum Merdeka, which prioritizes student-centered learning and 21st-century skill development (Kemendikbud, 2022).

The shift toward PBL is supported by empirical evidence suggesting that project-based modules not only improve language proficiency but also cultivate creativity and problem-solving abilities (Beckett & Slater, 2018). For instance, a study by Hung (2017) demonstrated that PBL increased student motivation and retention in English classrooms by linking language use to meaningful, context-driven tasks. However, despite its proven benefits, the adoption of PBL in Indonesian high schools remains limited, particularly in rural areas like Hiliduho. Challenges include a lack of teacher training, insufficient resources, and culturally relevant materials tailored to local contexts (Gulbahar & Tinmaz, 2021). These barriers underscore the importance of developing context-specific PBL modules that address both curricular requirements and the unique needs of students at SMA Negeri 1 Hiliduho.

This study aims to design and develop project-based English learning modules that bridge theoretical knowledge with practical application, ensuring alignment with the school's curriculum and the broader goals of Indonesia's educational reforms. By integrating local cultural themes and collaborative tasks, the modules seek to enhance students' linguistic confidence while preparing them for global communication demands. Additionally, the research evaluates the feasibility and effectiveness of these modules through teacher feedback and student performance metrics, contributing to the growing body of literature on PBL in EFL (English as a Foreign Language) contexts.

The significance of this research lies in its potential to offer a replicable model for similar schools facing comparable challenges. As digital tools and interdisciplinary projects become central to modern education, the development of such modules could inspire pedagogical innovation across Indonesia's diverse educational landscape (Hussin et al., 2019). Ultimately, this study not only addresses immediate instructional gaps at SMA Negeri 1 Hiliduho but also advocates for a transformative approach to language teaching that prioritizes student agency and real-world relevance.

METHODOLOGY

This study utilized the Research and Development (R&D) method, a structured approach designed to develop specific educational products and assess their effectiveness. According to Umar et al. (2023), R&D is widely applied in educational research due to its systematic framework, which facilitates the creation of innovative learning tools. The development model adopted in this research follows Borg and Gall's model, known for its effectiveness in designing project-based learning materials. This model provided a structured process for developing, testing, and refining educational products to ensure their quality and applicability.

Stages of Borg and Gall's Model

Although Borg and Gall's model originally consists of ten steps, this study condenses them into four essential stages to maintain efficiency while preserving the quality of the module development process:

1. Research and Data Collection

At this stage, the study identified the specific needs of project-based English learning at SMA Negeri 1 Hiliduho through various methods, including interviews, observations, and literature reviews. As highlighted by Gustiani (2023), understanding students' challenges and educational requirements is crucial for designing a relevant learning module. The collected data served as the foundation for ensuring that the module aligns with both student needs and curriculum expectations.

2. Module Design

This phase focuses on defining learning objectives, structuring content, and integrating project-based learning strategies into the module. Abdurrahman (2024) emphasizes that careful planning is essential to ensure the module meets both curriculum standards and student learning goals. The design included task-based activities, real-world applications, and interactive elements to enhance student engagement and facilitate deeper learning experiences.

3. Module Development and Validation

During this stage, the module is created based on the established framework, implemented in classrooms, and refined based on feedback from teachers and students. Okpatrioka (2024) stresses that an iterative approach to testing and validation is vital for ensuring the module's reliability and practical effectiveness. Data is gathered through classroom observations, teacher evaluations, and student feedback to ensure that the final module is user-friendly and pedagogically sound.

4. Limited Implementation

The final stage involved testing the module on a small scale to assess its impact on students' English language skills. The findings from this phase contributed to further refinement before wider application. According to Umar et al. (2023), this step is essential to confirmed the module's practicality and effectiveness before implementing it on a broader scale. Evaluation techniques such as pre- and post-tests, student reflections, and teacher assessments are used to measure improvements in language proficiency and student engagement.

The development of project-based learning modules was supported by several theoretical perspectives that enhance the learning process, particularly in English language education. Three fundamental theories underpinning this research include Project-Based Learning (PjBL), Iterative Development, and Efficiency in Simplification.

Project-Based Learning (PjBL) is widely recognized as an effective approach to increasing student engagement in learning activities. As stated by Umar et al. (2023), PjBL integrates real-world projects into instructional activities, encouraging students to develop critical thinking, collaboration, and independent learning skills. In the context of English language learning, this method allows students to practice language use in authentic situations, leading to more effective language acquisition compared to traditional approaches. Additionally, PjBL enhances problem-solving and communication skills, which are essential for 21st-century education.

In addition to project-based learning, iterative development played a crucial role in ensuring the module remains relevant and effective. Gustiani (2023) explains that iterative processes in Research and Development (R&D) enable continuous improvement of educational products, allowing them to adapt to different learning environments. Repeated testing and refinement ensure that each version of the module is more closely aligned with students' learning needs. This cyclical approach helps maintain high educational standards by integrating feedback from teachers and students throughout the development process.

Furthermore, efficiency in simplification is an important aspect of educational research, particularly in contexts with limited time and resources. Abdurrahman (2024) argues that simplifying Borg and Gall's ten-step process into fewer phases allows for a more manageable R&D approach while maintaining its methodological rigor. A streamlined process ensures that educational innovations are feasible and practical, making it easier for teacher.

FINDINGS AND DISCUSSION

Findings

The finding of this study focused on the development and implementation of project-based English learning modules at SMA Negeri 1 Hiliduho. Based on data collected through interviews, observations, and questionnaires, several key findings were identified:

1. Needs Analysis Outcomes: The initial research phase revealed that teachers and students required more interactive and engaging English learning materials. The existing curriculum lacked sufficient project-based elements, leading to reduced student motivation and engagement.
2. Module Development and Validation: The developed modules incorporated project-based learning strategies aligned with the national curriculum. Expert validation showed that the modules met pedagogical and content quality standards, receiving positive feedback from educators.
3. Effectiveness of the Modules: Field testing demonstrated significant improvements in students' English proficiency, particularly in speaking and writing skills. Pre-test and post-test comparisons indicated an average score increase of 20%, confirming the module's effectiveness in enhancing learning outcomes.

Table 1. Results of Pre-test and post-test

Test	Pre-Test Average Score	Post-Test Average Score	Improvement
Speaking Skills	60%	80%	20%
Writing Skills	58%	78%	20%
Overall Performance	59%	79%	20%

4. Student and Teacher Perceptions: Survey results indicated that 85% of students found the modules helpful in improving their English skills, while 90% of teachers believed the materials facilitated better classroom engagement and learning outcomes.

Table. 2 Student and Teacher Perceptions

Respondents	Positive Feedback (%)
Students	85%
Teachers	90%

Discussion

The findings aligned with previous studies emphasizing the importance of project-based learning in language acquisition. The integration of real-world projects encouraged active participation, collaboration, and critical thinking among students. Additionally, the structured design of the modules provided a clear framework for teachers to implement project-based learning effectively.

A key challenge identified was the initial adaptation period, where students and teachers needed time to adjust to the new learning approach. However, through continuous feedback and module revisions, these challenges were mitigated. The study also highlights the necessity for teacher training programs to enhance the successful implementation of project-based learning. Overall, the results support the hypothesis that project-based English learning modules significantly enhance student engagement and language skills. Future research may explore long-term impacts and potential scalability of the modules across different educational settings.

This study successfully designed, developed, and implemented project-based English learning modules at SMA Negeri 1 Hiliduho, contributing to the broader discourse on innovative pedagogical strategies in EFL contexts, particularly in rural Indonesian settings. The findings underscore several critical points regarding the efficacy and challenges of implementing PBL.

First, the significant improvement in students' English proficiency, evidenced by a 20% average score increase in speaking and writing skills (see Table in Results), strongly supports existing literature on the benefits of PBL. As Thomas (2020) and Beckett & Slater (2018) posit, PBL facilitates deeper learning by anchoring language use in meaningful, authentic tasks, which enhances both linguistic competence and communicative confidence. The increase in scores aligns with Hung's (2017) findings that PBL boosts motivation and retention by making learning relevant and engaging. In the context of SMA Negeri 1 Hiliduho, where traditional methods predominated, the shift to student-centered, project-driven activities effectively addressed gaps in active engagement and practical language application.

Second, the high acceptance rates from both students (85%) and teachers (90%) indicate that the modules were not only effective but also perceived as valuable by primary stakeholders. This positive reception is crucial for sustainable implementation. As Gulbahar & Tinmaz (2021) note, teacher buy-in is often a significant barrier to PBL adoption in schools with limited prior exposure. The structured yet flexible design of the modules, which integrated local cultural themes, likely facilitated this acceptance by providing a familiar context for both teaching and learning. The iterative development process, emphasized by Gustiani (2023) and applied in this study, allowed for continuous refinement based on direct feedback, ensuring the final product was pedagogically sound and contextually appropriate.

However, the study also candidly reports an initial adaptation period where students and teachers faced challenges adjusting to the new methodology. This finding resonates with broader observations about PBL implementation, where shifts from teacher-led to student-centered paradigms require time and support (Hussin et al., 2019). The researchers' use of continuous feedback loops to mitigate these challenges highlights the importance of the iterative R&D approach, as advocated by Okpatrioka (2024) and Abdurrahman (2024). This process underscores that successful educational innovation is not merely about product creation but involves ongoing adaptation and professional development.

Furthermore, the study's methodological choice to condense Borg and Gall's model into four key stages while maintaining rigor addresses the practical constraints common in resource-limited settings. As Abdurrahman (2024) argues, simplification in R&D processes can enhance feasibility without compromising quality. This pragmatic adaptation makes the research model potentially replicable for similar schools across Indonesia, contributing to the scalability of PBL interventions as encouraged by Indonesia's Kurikulum Merdeka (Kemendikbud, 2022).

In conclusion, the discussion affirms that the developed PBL modules effectively enhanced English learning outcomes at SMA Negeri 1 Hiliduho by fostering engagement, collaboration, and real-world language use. Similar opinion with Melati (2022) engagement and communicative activities in the syllabus, the principles of syllabus preparation, and the feasibility of the syllabus for economic faculties. The study validates PBL's theoretical benefits in a concrete, localized setting and provides a adaptable framework for other educators. Future research, as suggested by the authors, should explore long-term impacts and the modules' transferability to diverse educational contexts, potentially incorporating digital tools to further enrich the PBL experience.

CONCLUSION

This research successfully developed and tested project-based English learning modules designed to align with the needs of students at SMA Negeri 1 Hiliduho. The study confirms that project-based learning enhances student engagement, motivation, and language proficiency. The implementation of the modules resulted in notable improvements in students' speaking and writing skills, as well as increased participation in classroom activities.

The study also underscores the importance of integrating real-world tasks into language instruction to make learning more interactive and effective. Despite initial adaptation challenges, the modules received positive feedback from both students and teachers, demonstrating their potential for broader application. Further research is recommended to explore the long-term impact of these modules and their adaptability in different educational settings. Ultimately, this study contributes to the growing body of research supporting innovative and student-centered approaches to English language education.

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