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PROJECT-BASED LEARNING AND ENGLISH PRESENTATION SKILL DEVELOPMENT: AN EMPIRICAL STUDY

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Abstract

This study aimed at finding out the effect of Project Based Learning on Agricultural Faculty Students' English presentation skills at Universitas Muhammadiyah Sinjai. The used of Project-Based Learning (PBL) in teaching English as a Foreign Language (EFL) instruction creates meaningful, student-centered learning experiences that provision communicative competence. However, although there were many benefits, only a few are implemented in private Universities. This study employed a quasi-experimental design that was involving a pretest–posttest control group. The experimental group was taught by using PBL, while the control group was taught by using conventional instruction. In this study, to measure students' presentation performance, an analytical rubric was used which assessed content, organization, language accuracy, pronunciation, delivery, and use of visual aids. The results of this study indicated that students taught through PBL showed that a significant improvement in overall presentation skills compared to those in the control group. Moreover, the results of qualitative observations indicated that an increase in student's motivation, collaboration, and self-confidence in PBL classes. These findings suggested that PBL could create a more engaging and effective learning environment for developing presentation skills, especially for non-English majors in the Faculty of Agriculture, who often struggle to present assignments in English. Therefore, this study concluded that integrating PBL into the English language learning process could improve students' oral communication skills and supported more meaningful learning outcomes. Further research with in-depth investigations to examine follow-up activities after learning about student perceptions is highly recommended.

Keywords: English Foreign Language, Presentation Skills, Project-Based Learning

INTRODUCTION

Project-Based Learning (PBL) has a strong theoretical foundation and proven potential in developing communicative competence, especially in English as a Foreign Language (EFL) classes. From a theoretical perspective, PBL is grounded in the work of constructivist theorists such as Dewey (1938) and Vygotsky (1978), who emphasize active engagement, social interaction, and meaning-making as core components of learning. In PBL, students engage in a long-term inquiry process, work collaboratively to solve meaningful problems, and create tangible products or performances. These characteristics allow for authentic language use, structured interactions, and repeated opportunities for practice and refinement—all of which are highly beneficial for developing oral communication skills. Recent pedagogical frameworks, including task-based language teaching (TBLT) and inquiry-based learning, also intersect with PBL principles, highlighting the broader movement toward experiential and student-centered learning in EFL education (Ellis, 2020; Thomas, 2021).

Several researchers who have studied PBL have explained that PBL contributes significantly to students' speaking fluency, motivation, engagement, and collaborative skills (Gunawan, 2024; Ningsih & Pratiwi, 2022; Wang & Feng, 2021). This is particularly true for the findings of Benlaghrissi and Ouahidi (2024) who found that mobile-assisted PBL significantly improved Moroccan EFL learners' oral communication skills across multiple dimensions, including fluency, lexical resources, and pronunciation. Their findings suggest that

PBL, when used with digital tools, PBL can enhance opportunities for practice, multimodal learning, and interactive feedback.

Additionally, other studies have examined the potential of PBL to improve speaking skills. A study by Huang (2021) revealed that PBL improved public speaking performance in Taiwanese university students through critical thinking and content mastery. Similarly, research in Indonesian higher education settings shows that PBL encourages collaborative learning, supports vocabulary development, and increases presentation confidence (Rahmawati & Kusumaningtyas, 2024; Sari & Lestari, 2020). Furthermore, the stages of PBL in the classroom include selecting a topic, conducting research, writing a draft, receiving peer feedback, and practicing, which engages students repeatedly in oral communication tasks. This repeated explanation greatly helps them build accuracy and fluency.

Although many researchers have found that PBL can significantly improve student skills, researchers have preliminary observation that non-English speaking students in the Faculty of Agrotechnology still struggle with speaking due to limited or minimal English vocabulary, high levels of anxiety when presenting in English, and rarely communicating with others in English, which inevitably leads to low motivation. Yet, we all know that presentation skills are crucial, especially for delivering assignment reports, seminar presentations, and other tasks. Furthermore, many researchers have conducted research related to PBL using qualitative methods; very few have studied PBL using quasi-experimental methods. To overcome these problems, the researcher was interested in studying the effect of PBL on the development of English presentation skills of students in the Faculty of Agrotechnology at Universitas Muhammadiyah Sinjai.

Based on the justification provided above, the researcher formulated the following research questions: whether Project-Based Learning significantly improve English presentation skills, which dimensions of presentation performance (content, organization, accuracy, pronunciation, delivery, visual aids) showed the greatest improvement after PBL-based learning, and how students perceived the implementation of PBL in the learning process.

The significance of this study is that the results of the study provide evidence-based implications for EFL pedagogy, especially for instructors and curriculum designers who are looking for effective and student-centered teaching approaches to develop students' oral presentation competencies.

METHOD

This study used a quasi-experimental pre-test-post-test control group design to examine the impact of Project-Based Learning (PBL) on the English presentation skills of students of the Faculty of Agrotechnology at Sinjai Muhammadiyah University. The quasi-experimental approach was chosen because intact class groups were used, rather than randomly assigned participants, a common approach in educational settings where randomization is not always possible (Creswell, 2014). The experimental group was taught using PBL while the control group was taught using conventional methods.

The population of this study was first-year undergraduate students of the Faculty of Agriculture (Agrotechnology, Animal Husbandry, Aquatic Resources Management, and Agribusiness Study Programs) at Muhammadiyah University of Sinjai. Two classes were selected using purposive sampling, consisting of 25 experimental students and 25 control students.

This mixed-methods approach combined quantitative analysis of test results with qualitative findings obtained through student observation and reflection. This combination of data sources provides a stronger foundation for understanding the role of PBL in improving students' presentation skills (Fraenkel & Wallen, 2020). Students in the experimental group

received Project-Based Learning instruction over a 12-week semester. Throughout this phase, the instructor acted as a facilitator, offering guidance, feedback, and support rather than direct lectures. This supported the student-centered of learning as described by Thomas (2021) and reinforced the development of communicative competence through authentic and repeated practice. Meanwhile, students in the control group were taught using conventional methods. This instructional model reflects the traditional EFL teaching approach described by Choo (2021), which remains dominant in many universities in Indonesia. Both groups completed a 5–7-minute presentation at the beginning (pre-test) and end of the semester (post-test).

A comprehensive analytical rubric was developed to assess six key aspects of English presentation skills: content, organization, language accuracy, pronunciation, delivery, use of visual media. Each aspect was scored on a scale of 1–5, with 1 indicating very poor performance and 5 indicating excellent performance. The assessments were conducted by two independent raters. The level of agreement between the two was tested through inter-rater reliability, which achieved a coefficient of 0.87 in the pre-test and 0.91 in the post-test, indicating high reliability. Qualitative data were collected through weekly classroom observations, student reflection sheets after one project cycle, and brief interviews. Quantitative data from pretest and posttest scores were analyzed using by using Statistical Package for Social and Science (SPSS). Qualitative data were analyzed using thematic analysis**,** following the steps recommended by Braun and Clarke (2020): familiarization, coding, theme development, theme review and final refinement.

FINDINGS AND DISCUSSION

Findings

1. Improvement of Presentation Skills

a. Total Performance Comparison Between Groups

During the pretest, the average scores of both groups were nearly identical. The experimental group achieved an average score of 15.24 (SD = 2.51), while the control group achieved 15.08 (SD = 2.67). This equality confirms that the initial abilities of both groups were at comparable levels before the treatment was administered. After 12 weeks of learning, the posttest results showed a clear difference. The experimental group achieved an average score of 23.60 (SD = 2.87), while the control group scored 18.32 (SD = 2.75). Thus, the experimental group experienced an increase of 8.36 points, significantly exceeding the 3.24-point increase in the control group. The paired-sample t-test results showed that both groups experienced significant improvement, but the improvement in the experimental group was much stronger. Meanwhile, the independent-sample t-test showed that the difference in improvement between the two groups was statistically significant ($p < .05$). These findings confirm that PBL has a greater impact on improving presentation skills than conventional learning methods.

b. Video-Based Assessment Validation

To ensure assessment reliability, both researchers re-evaluated a random sample of 20% of the recorded presentations. Inter-rater reliability increased from 0.87 at pre-test to 0.91 at post-test, indicating consistent and reliable assessments. The researchers commented that post-test presentations in the PBL group demonstrated more structured delivery, clearer articulation, and more confident body language.

2. Improvement by Rubric Dimensions

To determine which aspects of presentation skills improved the most, each dimension in the analytic rubric was analyzed separately. The dimensions included content, organization, language accuracy, pronunciation, delivery, and use of visual aids.

a. Content Development

The content dimension showed significant improvement in the experimental group. Students were able to present more accurate, relevant, and well-organized information in the post-test. The average content score increased by 2.12 points with a large effect size (d = 0.80), while the control group only experienced an increase of 0.78 points. This difference indicates that the implementation of structured projects positively contributed to the quality of students' presentation content. The strong improvement in the experimental group is likely due to the structured project cycle, which required students to conduct research, summarize findings, and revise content through peer and instructor feedback.

b. Organization

The analysis showed that the organizational dimension experienced a greater improvement in the experimental group than in the control group. The experimental group recorded an average score increase of 2.08 points, which is classified as a large improvement, while the control group only experienced an increase of 0.96 points. The post-test presentations in the experimental group showed a more systematic structure, characterized by a clear introduction, more effective transitions between ideas, a logical sequence of presentation, and a stronger conclusion.

c. Language Accuracy

The language dimension, which encompasses grammar, comprehension, and sentence structure, showed moderate but significant improvement. The experimental group recorded an average score increase of 1.42 points, while the control group experienced an increase of 0.88 points. Although the magnitude of improvement in this aspect was relatively lower compared to the other dimensions, post-test results showed that the experimental group displayed more appropriate vocabulary use, more varied sentence structures, and better grammatical control. These findings suggest that sustained engagement in project-based activities contributes to the development of linguistic abilities through repeated exposure to writing and speaking activities.

d. Pronunciation

The learning dimension showed moderate improvement in both groups, but the experimental group performed better than the control group. The PBL group experienced an average score increase of 1.28 points, while the control group only improved by 0.70 points. Qualitative findings from observations indicate that repeated practice in peer groups contributed to students' increased awareness of word stress and intonation, improved articulation accuracy, and reduced pronunciation errors. Student engagement in practice sessions throughout the project allowed for continued repetition of practice, ultimately supporting the development of pronunciation skills.

e. Delivery

The communication dimension, which includes body language, eye contact, confidence level, and speaking tempo, showed one of the highest improvements in the experimental group. The PBL group recorded an average score increase of 2.36 points. Post-test presentation results showed that students in this group displayed higher confidence, indicated by more consistent eye contact, reduced reliance on notes, more effective use of gestures, and better control of tempo and voice projection. In comparison, the control group only experienced an increase of 0.92 points, indicating basic development, but not comparable to the improvement achieved by the experimental group.

f. Use of Visual Aids

The used visual media dimension showed the highest improvement in the experimental group. The PBL group recorded an average score increase of 2.48 points. Post-test results indicated that students were able to produce more effective presentation materials, including visually appealing slides, infographics, and charts that aligned with the content of the explanation. The improvement in this dimension was related to explicit instruction on slide design, the implementation of a continuous feedback cycle, and the use of various digital tools throughout the project. In contrast, the control group only experienced an improvement of 0.60 points, with most students still using text-heavy and poorly structured slides.

3. Perceptions of PBL

a. Theme 1: Increased Motivation

The results showed that students felt the presentation topics were related to their respective fields of study, which increased their sense of relevance and motivation to learn. One student stated that:

> *"Saya merasa termotivasi dalam mempresentasikan materi karena sesuai dengan Program Studi saya. Hal ini membuat saya dapat menjelskan topik dengan lebih baik"* (I feel motivated to present the material because it aligns with my study program. This allows me to explain the topic better).

Furthermore, students appreciate the freedom given to them in selecting and developing project topics. This freedom allows them to tailor the presentation of content to their interests and needs, which can increase their engagement in the learning process.

b. Theme 2: Improved Collaboration

Collaboration was a dominant theme in the interview data and observations. Students engaged in collaborative work throughout the process, from practice to presentation. Throughout the process, they actively exchanged ideas, provided corrective feedback, and supported each other during practice sessions. Other students stated that:

> "*Kerja kelompok membantu kami dalam memahami topik dengan lebih baik dan mengidentifikasi aspek yang perlu kami perbaiki sesuai dengan masukan dari teman kami*."
> (group work helped us better understand the topic and identify areas for improvement based on feedback from our peers).

This result stated that peer learning plays a significant role in improving the quality of presentation content and the accuracy of language use.

c. Theme 3: Increased Confidence in Speaking

Most students initially reported feeling anxious about public speaking. However, Project-Based Learning provided students with opportunities for repeated practice, which gradually contributed to a decrease in anxiety and increased confidence. One of students revealed that:

> *"Awalnya saya gugup, tetapi setelah berlatih berkali-kali dengan kelompok saya, saya merasa lebih percaya diri.*
> (At first, I was nervous, but after practicing many times with my group, I felt more confident).

Furthermore, students reported that understanding how to design effective visual aids helped them convey their message more clearly, which in turn further strengthened their confidence during presentations.

d. Theme 4: Challenges Encountered

Although student responses to the implementation of Project-Based Learning were generally positive, several challenges were identified in reflection and interview data. These challenges included difficulty balancing project demands with other coursework, feelings of initial overwhelm, uneven group participation, and limitations in finding credible sources in English. However, students reported that most of these challenges gradually diminished over time, as they became more familiar with the workflow and demands of project-based learning.

Discussion

1. Impact of Project-Based Learning on Presentation Skills (Research Question 1)

The first research question examined whether Project-Based Learning (PBL) significantly enhanced students' English presentation skills compared to conventional instruction. The findings clearly indicated that students in the PBL group achieved substantially greater improvement, with mean gain scores more than twice those of the control group. This result aligns with prior studies consistently reporting the positive effects of PBL on oral communication and speaking performance.

Previous research supports these findings. Gunawan (2024) reported significant improvements in speaking fluency, pronunciation, and confidence among Indonesian university students following PBL implementation. Similarly, Benlaghrissi and Ouahidi (2024) found that mobile-assisted PBL led to stronger gains in fluency, coherence, and

pronunciation than traditional instruction. Together, these studies reinforce the present findings, suggesting that PBL offers richer opportunities for meaningful language use, collaborative inquiry, and sustained practice.

The superior performance of the experimental group may be attributed to the authentic and student-centered nature of PBL tasks. By engaging with topics relevant to their academic disciplines, students experienced higher motivation and engagement. This is consistent with Self-Determination Theory (Deci & Ryan, 2000), which emphasizes autonomy, relevance, and perceived competence as key drivers of intrinsic motivation.

Moreover, the iterative structure of PBL—including research, drafting, peer feedback, and rehearsal—provided extended opportunities for refining both content and delivery. In contrast, conventional instruction typically offers fewer structured practice phases, which may explain the comparatively limited improvement observed in the control group.

2. Improvement in Specific Presentation Skill Dimensions (Research Question 2)

The second research question focused on determining which dimensions of presentation performance improved the most as a result of PBL. Consistent with previous literature, the present study found that use of visual aids, delivery skills, content development, and organization were the most significantly improved areas.

a. Use of Visual Aids

Visual aids saw the highest improvement in the experimental group. This is unsurprising given that PBL encourages the creation of multimodal project products. Students developed slides, infographics, and other visual materials as part of their project assignments. As Krajcik and Shin (2021) emphasize, PBL often integrates digital tools that enhance multimodal communication, thereby supporting learners' visual literacy and presentation clarity.

In contrast, the control group received minimal instruction in designing visual support, leading to text-heavy slides and lower scores. This highlights the importance of integrating digital literacy into EFL pedagogical practices.

b. Delivery Skills

Delivery—eye contact, gestures, voice projection, and confidence—was another highly improved dimension. The improvement can be attributed to repeated rehearsals and opportunities for peer feedback, a hallmark of PBL. Students practiced multiple times before their final presentation, reducing anxiety and improving fluency.

Apart from that, Students Practice Multiple Times functions as a form of practice that allows students to apply effective presentation strategies through observation, imitation and reflection. The characteristic of collaborative PBL also creates a low-anxiety learning environment, where students' peer support encourages them to take risks and experiment with verbal and non-verbal communication. As a result, students not only practice their language skills but also develop confidence in communicating—a component of effective oral performance.

The findings align with Sari and Lestari (2020), who found that students engaged in PBL showed greater confidence and fluency due to increased speaking exposure and collaborative interactions. Overall, these results suggest that PBL facilitates improved delivery by integrating performance opportunities with social feedback mechanisms, thereby increasing linguistic competence and affective readiness for presentation.

c. Content and Organization

Significant improvements in content and organization are consistent with PBL's emphasis on providing structured and synthesized information. PBL requires students to engage in a systematic process of data collection, source evaluation, outlining, and logical sequencing of ideas, which directly supports the development of structured and coherent presentation content. Furthermore, PBL provides students with ample time for planning and revision, enabling them to refine their ideas and develop a clearer rhetorical structure before delivering their presentations.

The cognitive skills embedded in PBL—such as problem analysis, decision-making, and information synthesis—play a critical role in strengthening the higher-order thinking skills that underpin effective content development and organization. Huang (2021) similarly found that PBL enhanced university students' ability to develop coherent and well-structured public speeches, due to the extended planning and drafting stages built into PBL models.

d. Language Accuracy and Pronunciation

Language and pronunciation accuracy showed modest and less noticeable improvements compared to the improvements observed in content development and organizational structure. This pattern reflects the nature of Project-Based Learning (PBL), which prioritizes meaning-focused communication and task completion over formal linguistic accuracy. From a form-focused perspective (Ellis, 2020), students are more likely to notice grammatical features when communication breaks down, rather than systematically correcting them. Therefore, in PBL, improvements in language accuracy are less noticeable.

Similarly, pronunciation improvements are achieved through repeated practice and peer evaluation, which enhances phonological knowledge and confidence. Therefore, modeling stress patterns, corrective feedback on repeated pronunciation errors, or phonological practice within the PBL cycle can improve linguistic accuracy while maintaining the communicative power of the approach.

3. Students' Perceptions of PBL

a. Motivation

Students reported that PBL increased their interest in learning English because the project tasks were closely related to their field of study, making language use more meaningful and purposeful. This relevance fostered intrinsic motivation, as students viewed English as a practical tool for academic and professional communication, and the freedom to choose topics aligned with their field could further enhance their sense of ownership, leading to deeper engagement. These findings are consistent with Ningsih and Pratiwi (2022), who found that relevance and learner autonomy in a PBL environment significantly contributed to sustained motivation and active participation.

b. Collaboration

Collaboration emerged as a key theme, as students valued group work for exchanging feedback, generating ideas, and practicing presentations collaboratively. Through ongoing interaction, students supported each other in their learning, and students felt less anxious about performance, contributing to increased confidence and engagement in the task. As a core principle of PBL, collaborative learning encourages peer support and shared accountability, encouraging students to be active contributors rather than passive recipients of instruction. These findings align with previous research showing that collaboration in PBL environments enhances social interaction and learning accountability (Thomas, 2021; Rahmawati & Kusumaningtyas, 2024).

c. Confidence

Self-confidence increased significantly, as students stated in interviews that repeated practice in the PBL cycle provided students with ample opportunities to practice speaking, thereby reducing anxiety and improving fluency. Through peer interaction and supportive feedback, students developed greater self-efficacy in using English for oral communication. This finding supports Wang and Feng (2021), who reported that frequent practice and collaborative support in a PBL environment helped students overcome speaking anxiety. The results showed that increased self-confidence served as a mediating factor facilitating improved oral performance in PBL-based learning.

d. Challenges

Despite the benefits, students also reported several challenges, including time management difficulties, limited access to credible English-language resources, uneven group participation, and initial confusion regarding project expectations. These challenges reflect common implementation issues in PBL, particularly when learners are unfamiliar with student-centered learning models. Consistent with PBL literature, this highlights the importance of instructor support, clear assignment guidelines, and ongoing monitoring (Kokotsaki, Menzies, & Wiggins, 2016). Interestingly, students indicated that these difficulties gradually diminished as they became more familiar with the project cycle. However, students noted that these challenges diminished as they adapted to the project cycle.

CONCLUSION

This study examined the effectiveness of Project-Based Learning (PBL) in developing English presentation skills among students of the Faculty of Agriculture at Universitas Muhammadiyah Sinjai. Using a quasi-experimental design supported by qualitative data, the findings demonstrate that PBL leads to significantly greater improvements in students' presentation performance compared to conventional instruction. These results provide strong empirical evidence that PBL is an effective pedagogical approach for enhancing multimodal oral communication skills in EFL contexts.

Qualitative findings revealed that students have positive perceptions towards the PBL process. The student's motivation, engagement, and confidence as a result of working on meaningful projects aligned with their academic disciplines. Collaboration emerged as a key component, facilitating peer learning, idea exchange, and reciprocal feedback. Through iterative cycles of planning, drafting, rehearsal, and presentation, students experienced reduced anxiety and greater comfort in public speaking.

Despite these benefits, several challenges were identified, including difficulties with time management and initial unfamiliarity with project expectations. Nevertheless, students indicated that these challenges diminished over time as they became more accustomed to the PBL process, particularly with instructor guidance and peer support.

Future research should explore the implementation of PBL across diverse higher education contexts, including public universities and vocational institutions. Further studies may also investigate technology-enhanced PBL to support digital communication skills or examine its long-term impact on students' academic and professional communication development (e.g., AI tools, mobile apps).

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