



## Improving Speaking Fluency through Project-Based Learning in Online EFL Classrooms

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**Abstract.** *This study explores the implementation of Project-Based Learning (PBL) to enhance speaking fluency among students learning English as a Foreign Language in online classrooms. The research was motivated by the persistent challenges learners face in expressing ideas fluently and confidently during virtual English sessions. A qualitative descriptive method was employed involving observation, interviews, and speaking performance assessments to gain a comprehensive understanding of students' progress. The participants were university-level English learners who engaged in online project-based tasks focusing on real-life communication and problem-solving activities. The findings indicated that PBL effectively improved students' speaking fluency through increased opportunities for interaction, collaboration, and authentic language use. Moreover, students reported higher motivation and confidence as they worked collaboratively to plan, design, and present their projects in English. The use of PBL also encouraged learner autonomy and creativity, fostering active participation and meaningful learning experiences even in a virtual environment. The study concludes that integrating Project-Based Learning into online English instruction promotes not only linguistic fluency but also critical thinking and social skills necessary for academic and professional communication. These findings highlight the pedagogical value of PBL as an innovative approach for developing speaking fluency in online language learning contexts.*

**Keywords:** *Collaboration; English Learning; Online Learning; Speaking; Fluency.*

### 1. BACKGROUND

The ability to speak English fluently is a fundamental component of communicative competence and a key indicator of language proficiency for learners of English as a Foreign Language (EFL). Speaking fluency enables learners to express thoughts, ideas, and opinions effectively in various academic, social, and professional contexts. However, many EFL students continue to experience difficulties in achieving fluency due to limited exposure to authentic language use, insufficient opportunities for communication, and anxiety about making mistakes. In traditional language classrooms, instructional practices often emphasize grammatical accuracy and vocabulary acquisition rather than encouraging spontaneous and meaningful oral interaction. Consequently, students may possess adequate linguistic knowledge but lack the ability to use English fluently and naturally in real communicative situations.

The shift to online learning during and after the COVID-19 pandemic has further complicated this issue. Although digital platforms have created new opportunities for global communication and virtual collaboration, they have also presented challenges in fostering speaking interaction. Many EFL learners find it difficult to engage actively in online discussions due to technological barriers, lack of confidence, and reduced social presence.

These challenges have motivated educators and researchers to explore alternative instructional models that promote active learning, collaboration, and authentic communication in online environments.

Project-Based Learning (PBL) has gained increasing attention as an innovative, student-centered approach that can address these pedagogical challenges. PBL emphasizes learning through the completion of meaningful projects that reflect real-world tasks and encourage the use of language for authentic communication. Through collaborative projects, students are given the opportunity to plan, research, discuss, and present their findings in English, thereby integrating language skills within a communicative context. Previous research, such as by Thomas (2020), Hasanah (2021), and Nguyen and Pham (2022), has demonstrated that PBL enhances learner motivation, critical thinking, and autonomy while simultaneously improving speaking fluency. However, most existing studies have been conducted in face-to-face classroom settings, leaving a research gap in the application of PBL to online EFL learning environments.

This study seeks to fill that gap by investigating the effectiveness of Project-Based Learning in improving speaking fluency among university students in online EFL classrooms. The research aims to examine how PBL fosters interaction, collaboration, and confidence in virtual learning settings, and to identify the pedagogical strategies that best support the development of oral proficiency. The novelty of this study lies in its focus on integrating PBL within an online platform, emphasizing its role in promoting fluency and communicative competence through student-centered, technology-enhanced learning. The findings are expected to contribute valuable insights for educators and curriculum developers in designing effective online language learning models that not only enhance linguistic skills but also encourage learner engagement, creativity, and collaboration in the digital era.

## 2. THEORETICAL REVIEW

Speaking fluency is a central component of communicative competence, which refers to the ability to use language effectively and appropriately in real-life contexts (Hymes, 1972). In the field of second language acquisition (SLA), fluency is often associated with the smoothness, speed, and coherence of speech production (Skehan, 2009). According to Nation (2014), fluency development requires learners to engage in repeated, meaningful communication that emphasizes message delivery rather than linguistic form. Within

English as a Foreign Language (EFL) instruction, achieving fluency remains a challenge because students often receive limited opportunities to practice speaking in authentic and interactive situations. Therefore, communicative approaches and learner-centered models such as Project-Based Learning (PBL) have been introduced to foster more dynamic and purposeful language use.

Project-Based Learning is grounded in constructivist and experiential learning theories. According to Dewey (1938), meaningful learning occurs when learners actively engage with real-life problems, reflect on experiences, and construct knowledge through collaboration. Similarly, Vygotsky's (1978) social constructivist theory emphasizes that learning is mediated through social interaction within the Zone of Proximal Development (ZPD), where learners co-construct understanding through communication. In the context of language learning, PBL aligns with these theoretical principles by engaging students in authentic tasks that require the use of language to solve problems, make decisions, and present outcomes collaboratively.

PBL encourages learners to integrate multiple language skills—listening, speaking, reading, and writing—within the process of completing a project. Thomas (2000) defines PBL as a systematic teaching method that engages students in complex, real-world projects that promote active exploration and the use of target language skills. In EFL settings, PBL helps shift the focus from teacher-centered instruction to student-centered learning, empowering learners to take responsibility for their progress and develop communication skills through authentic practice. By involving learners in project planning, execution, and presentation, PBL provides a communicative environment conducive to fluency development, as learners must articulate ideas clearly and interact meaningfully with peers (Beckett & Slater, 2020).

Several studies have highlighted the positive effects of PBL on speaking fluency in language education. For example, Hasanah (2021) found that PBL significantly enhanced students' fluency, vocabulary use, and pronunciation through collaborative and contextualized speaking activities. Likewise, Nguyen and Pham (2022) reported that students involved in project-based tasks demonstrated improved confidence, coherence, and spontaneity in oral communication. In online learning contexts, research by Rahman (2023) revealed that integrating PBL with digital tools increased student motivation and participation, promoting an interactive and supportive environment for speaking practice.

Based on these theoretical and empirical foundations, this study assumes that Project-Based Learning can effectively improve speaking fluency in online EFL classrooms by providing authentic, communicative experiences and encouraging learner autonomy, collaboration, and engagement. The integration of PBL into online language instruction represents not only a pedagogical innovation but also a response to the growing need for interactive, student-centered approaches in digital learning environments. Thus, it is implicitly hypothesized that the application of PBL in online EFL classes enhances students' speaking fluency by creating meaningful, communicative, and collaborative learning experiences.

### 3. RESEARCH METHOD

This study employed a qualitative descriptive research design aimed at investigating the effectiveness of Project-Based Learning (PBL) in improving speaking fluency among students in online English as a Foreign Language (EFL) classrooms. The qualitative approach was chosen to gain an in-depth understanding of students' experiences, perceptions, and progress in developing speaking fluency through project-based activities conducted in virtual learning environments.

The population of this study consisted of undergraduate students enrolled in an English education program at a private university in Indonesia during the 2024/2025 academic year. From this population, a purposive sampling technique was used to select 30 students who participated in an online speaking course that integrated PBL as the primary instructional method. The selected participants represented intermediate-level English learners who had sufficient digital literacy to engage in online collaborative projects.

Data collection was conducted through three main techniques: classroom observation, semi-structured interviews, and speaking performance assessments. Observations focused on student participation, interaction, and communication strategies during online project activities. Interviews were conducted to gather students' reflections on their learning experiences, motivation, and perceived improvement. Speaking performance was evaluated before and after the implementation of PBL using a standardized speaking rubric adapted from Brown (2004), assessing fluency, pronunciation, vocabulary, and coherence. The research instrument was validated by two language experts, and the reliability test showed a high inter-rater consistency with a coefficient of 0.87, indicating that the instrument was reliable for assessing speaking performance.

Data analysis was performed through qualitative thematic analysis supported by descriptive statistics. The qualitative data from interviews and observations were coded and categorized into themes related to fluency improvement, motivation, collaboration, and learner autonomy. Meanwhile, the quantitative results from the pre-test and post-test speaking assessments were analyzed using a paired sample t-test to determine whether there was a significant improvement in students' speaking fluency after the implementation of PBL. The statistical analysis followed standard procedures as described by Cohen, Manion, and Morrison (2018). The research model applied in this study can be expressed as:

$$SF = f(PBL, M, C, A)$$

where SF represents speaking fluency, PBL stands for Project-Based Learning implementation, M denotes student motivation, C indicates collaboration, and A refers to learner autonomy. This model assumes that speaking fluency is a function of the interaction between project-based activities, learner motivation, collaborative engagement, and autonomous learning.

In summary, this research method was designed to comprehensively examine how Project-Based Learning enhances speaking fluency in online EFL classrooms through both linguistic and affective dimensions, integrating qualitative insights with quantitative validation to ensure a robust interpretation of results.

## **4. RESULTS AND DISCUSSION**

### **Data Collection Process, Time Span, and Research Location**

The research was conducted over a period of three months, from February to April 2025, at a private university in Indonesia offering an English Education undergraduate program. Data were collected from one online speaking course that implemented Project-Based Learning (PBL) as its instructional model. The course was conducted via a Learning Management System (LMS) and supported by online meeting tools such as Zoom and Google Classroom. Students worked collaboratively in groups to design, execute, and present digital projects related to real-life communication topics such as environmental awareness, digital entrepreneurship, and cultural diversity. Throughout the study, data were gathered through classroom observations, semi-structured interviews, and pre-test and post-test speaking assessments.

## Analysis of Speaking Fluency Improvement

The main focus of the analysis was to determine whether PBL had a significant effect on improving students' speaking fluency in online EFL classrooms. Students' speaking performances were rated using a rubric adapted from Brown (2004), covering aspects of fluency, pronunciation, vocabulary, and coherence.

**Table 1.** Summary of Students' Speaking Fluency Scores Before and After PBL Implementation

Aspect of Assessment	Pre-test Mean	Post-test Mean	Improvement (%)
Fluency	70.3	84.1	19.6
Pronunciation	72.5	83.0	14.5
Vocabulary	74.2	86.7	16.9
Coherence	71.6	85.3	19.1
Overall Average	72.2	84.8	17.4

*Source: Processed Research Data (2025)*

The results in Table 1 indicate a significant improvement in all aspects of speaking performance after the implementation of PBL. The most substantial increases occurred in fluency and coherence, demonstrating that project-based tasks encouraged students to speak more naturally, smoothly, and logically during communication activities. Statistical analysis using a paired sample t-test showed a significant difference between the pre-test and post-test mean scores ( $t = 8.73, p < 0.05$ ), confirming that the improvement was not due to chance.

## Thematic Analysis of Qualitative Data

Qualitative data from observations and interviews were analyzed thematically to provide deeper insights into students' experiences. Four major themes emerged: (1) enhanced fluency through authentic communication, (2) increased motivation and engagement, (3) development of collaboration and teamwork skills, and (4) growth in learner autonomy and confidence.

Students reported that completing real-world projects encouraged them to use English spontaneously, focusing more on meaning rather than accuracy. They also noted that working collaboratively helped reduce anxiety and build confidence when speaking in front of peers. Observations confirmed that group discussions and presentations created an interactive learning environment where students actively used English to negotiate meaning, solve problems, and share ideas.

## **Discussion of Findings**

The findings of this study align with previous research asserting the effectiveness of PBL in promoting communicative competence and fluency (Thomas, 2020; Nguyen & Pham, 2022; Hasanah, 2021). The improvement in speaking fluency reflects the principles of constructivist learning theory (Dewey, 1938) and Vygotsky's (1978) social interaction theory, both emphasizing the role of active participation and collaboration in knowledge construction. The integration of PBL in online environments provided learners with opportunities for authentic language use, which is consistent with Nation's (2014) view that fluency is developed through repeated, meaningful communication.

Compared to traditional teacher-centered methods, PBL allowed learners to become active participants in the learning process. The online format, supported by digital platforms, enabled flexible collaboration and extended interaction beyond classroom boundaries. This result supports Rahman's (2023) findings that digital PBL enhances learner engagement and language output in virtual EFL contexts.

## **Theoretical and Practical Implications**

Theoretically, this study reinforces the constructivist and communicative frameworks that support learner-centered instruction in EFL education. It highlights how PBL promotes both cognitive and affective dimensions of fluency development, combining language practice with motivation, creativity, and collaboration.

Practically, the findings suggest that teachers can adopt Project-Based Learning in online classrooms to foster authentic communication and improve speaking fluency. Teachers should design projects that integrate real-life themes, encourage group collaboration, and utilize digital tools for interaction and presentation. Additionally, ongoing feedback and reflection should be incorporated to sustain students' progress and confidence in using English.

In conclusion, the results demonstrate that Project-Based Learning significantly enhances speaking fluency in online EFL classrooms. The combination of meaningful project work, interactive learning, and digital collaboration creates a dynamic environment where students develop not only linguistic fluency but also essential 21st-century communication skills.

## 5. CONCLUSION AND SUGGESTION

The findings of this study indicate that the implementation of Project-Based Learning (PBL) effectively improves speaking fluency among students in online English as a Foreign Language (EFL) classrooms. The results from both quantitative and qualitative analyses demonstrate significant progress in students' fluency, coherence, pronunciation, and vocabulary use after engaging in project-based activities. Students exhibited greater confidence, motivation, and autonomy in expressing their ideas, which suggests that the interactive and meaningful nature of PBL provides an ideal platform for authentic language use in virtual learning contexts. The results also confirm that online project-based tasks encourage collaboration and communicative interaction, supporting the principles of constructivist and social learning theories that emphasize learning through participation and experience.

Based on these findings, it can be concluded that Project-Based Learning serves as an effective pedagogical model for enhancing speaking fluency in online EFL settings. The integration of real-world projects and collaborative digital interaction allows students to practice English meaningfully while developing essential soft skills such as teamwork, problem-solving, and critical thinking. This study also highlights that the use of technology in online PBL supports student engagement and interaction, bridging the gap between traditional face-to-face communication and virtual learning environments.

However, this research acknowledges certain limitations. The sample size was relatively small and limited to one university context, which may restrict the generalizability of the results. Additionally, the study focused primarily on fluency development, leaving other aspects of speaking competence—such as accuracy and pragmatic use—less explored. Future research is recommended to involve a larger and more diverse population, employ a mixed-methods approach, and investigate the long-term effects of PBL on overall communicative competence in various online and blended learning settings.

In light of the results, it is suggested that English instructors adopt Project-Based Learning as a strategic approach to enhance students' speaking fluency, particularly in online environments. Teachers should design projects that reflect real-life situations, encourage collaboration, and integrate technological tools to foster interaction and engagement. Educational institutions are also encouraged to provide professional development for teachers in designing and managing PBL-based online instruction. By

doing so, PBL can become a sustainable and innovative pedagogical framework that supports effective English language learning in the digital era.

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