

TikTok-Integrated Project-based Learning for EFL Speaking Development: A Qualitative Case Study in a Tertiary Context

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ABSTRACT

While TikTok has been increasingly explored in education, its role as a central pedagogical artefact in Project-Based Learning (PjBL) for tertiary EFL speaking development remains underexamined. This study investigates how TikTok storytelling projects and reflective writing facilitate students' speaking skills. A qualitative case study was conducted with 14 tertiary EFL students in Indonesia. Data were collected through classroom observations, student-produced TikTok videos, reflective writings, and instructional documents. Analysis employed Brown's speaking descriptors to identify patterns in students' speaking performance and development. The integration of TikTok as a project artefact promoted iterative speaking practice, peer rehearsal, and continuous reflection. Rather than uniform improvement, students exhibited varied speaking development, including enhanced inquiry, collaboration, and reduced speaking anxiety. The reflective phase was particularly significant, enabling students to recognize their communicative abilities and address psychological barriers to speaking. The findings highlight the pedagogical value of combining social media platforms with PjBL to create authentic, engaging, and low-anxiety learning environments. Reflection played a crucial role in consolidating learning and fostering self-awareness in language use. TikTok-mediated PjBL offers a promising approach to supporting tertiary EFL speaking development by integrating creativity, collaboration, and reflective practice. This study contributes a conceptually grounded framework for technology-enhanced language learning and suggests the need for further research on scalable and context-sensitive implementations.

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1. INTRODUCTION

One of the more persistent questions of the teaching of EFL at the postsecondary level is the promotion of good speaking performance (Harefa et al., 2024). Though students accept extensive formal

learning time in the English language, there are areas of oral fluency, confidence, and active involvement in spoken communication, which are considered to be the weaknesses of most university students. These difficulties are not merely articulation-based, and they are generally identified by speaking anxiety, bad access to natural communication and teaching strategies that nonetheless concentrate on grammatical correctness, but not communicative usage (Leeming & Harris, 2025). As a result, speech is typically considered to be the most difficult of the languages in an EFL environment. Despite years of formal instruction, university students in Indonesia frequently struggle with oral fluency and communicative involvement, often hindered by high speaking anxiety and a lack of authentic communicative opportunities (Syahrani et al., 2024). This suggests a critical need to move beyond grammar-centric strategies toward methods that foster long-term, purposeful language use.

The contemporary pedagogy of the English language has been moving towards effective communication as a response to the ongoing problems of limited interaction. The pedagogical approach of PjBL has been the focus of discussion as a method that contextualises language use. Grounded in Vygotsky's Sociocultural Theory, PjBL transforms students from passive receivers into active agents and decision-makers in the learning process (Asnur et al., 2025). In the EFL context, empirical evidence suggests that such long-term engagement in the PjBL helps develop oral communication skills since learners are encouraged to have lengthy verbal interaction (Latifah et al., 2025). By applying the Gold Standard PjBL model (Larmer et al., 2018), this study ensures that technology is not just an add-on but a mediator for inquiry and reflection.

The influence of digital technologies in language teaching has changed the way the English language is learned and taught (Hasumi & Chiu, 2024; L. Suryani & Argawati, 2023). This is because technologies blur the boundaries of what constitutes formal learning and the digital devices through which learners live their lives in the digital era (Jasrial et al., 2020). Besides formal classroom learning, most learners are now learning English in an informal and out-of-the-classroom way through social media and online communication tools, and they use a significant amount of time in connection with these tools. These are technology-mediated environments that have reduced affective pressure and offer more genuine communication opportunities, which are usually thought to be more conducive to language development.

In the digital era, multimodal learning theory explains how audiovisual platforms provide "affordances" that reduce affective filters, offering more genuine communication opportunities than conventional classrooms (Anwas et al., 2020). The freshly graduated college students use TikTok, which occupies an immense part of their daytime activity. Unlike YouTube or Instagram, which often prioritize long-form content or static imagery (Gómez-Ortiz et al., 2023), TikTok's pedagogical value lies in its short-video, performance-based nature (Yang et al., 2025). According to growing evidence, the social media platform has potential in teaching language skills, such as EFL speaking, because it encourages a cycle of planning, rehearsing, and revising, closely resembling performance-based speaking theory (Anwas et al., 2020).

Recent studies in higher education investigating TikTok and short-video platforms have largely focused on student perceptions, engagement levels, and general academic outcomes. For instance, Yang et al. (2025) highlight the platform's popularity but provide limited insight into how speaking skills are developed as a long-term linguistic cultivation process. While some studies, such as Hongsa et al. (2023), Van and Mai (2024), and Suryani et al. (2025), have successfully demonstrated that TikTok-based exercises promote fluency and confidence through multimodal practice, and others like Hamsia (2024) affirm its positive influence on oral proficiency, these findings remain focused on the "what" rather than the "how." The other, Tan et al. (2022), investigated the potential features of TikTok used for teaching English. Consequently, a significant research gap remains: while the pedagogical potential of short videos is recognized, few studies analyze the process-oriented development of speaking within a complete PjBL cycle (Benlaghrissi & Ouahidi, 2024). Furthermore, the specific role of digital media as a central "project artefact" that facilitates student reflection, rather than just a submission tool, remains under-investigated.

Based on these gaps, the present study theorizes TikTok as a central project artefact in a PjBL model. The paper will examine how TikTok serves a pedagogical purpose and influences the process of spoken performance and reflective self-interpretations. The research questions guiding the study are:

1. How can TikTok be used as a pedagogical artefact within the cycle of project-based learning of EFL speaking?
2. What are the qualitative trends of speaking performance among the students when TikTok is introduced as a project artefact?
3. How do students narrate their learning experiences regarding confidence and fluency during the reflective phase of the project?

2. METHODS

2.1 Research Design

Following Creswell (2009), this study adopts a qualitative case study to investigate the pedagogical integration of TikTok within a PjBL framework and its impact on student speaking performance. This design was considered appropriate because it allows a detailed study of teaching and learning practises, experiences of the participants of the limited learning setting, rather than trying to make statistical generalization. Yin (2018) also emphasizes that the case study is selected to provide an in-depth analysis of a bounded system, specifically, a single six-week instructional cycle in a tertiary EFL classroom. This approach allows for a nuanced examination of instructional design as it unfolds in a real-world educational setting.

2.2 Participants

The participants were 14 undergraduate students ($n = 14$) enrolled in the *Speaking for Formal and Informal Sets* course at Universitas Prof. Dr. Hazairin, SH, Indonesia. The class consisted of 8 female students and 6 male students. Aged between 19 and 21 years, these students were at an intermediate proficiency level (approximately B1 CEFR equivalent) according to the Common European Framework of Reference for Languages. The choice of this group was purposive; despite being active on social media, these students demonstrated significant “mismatch” behaviours, such as high speaking anxiety and reluctance to use English in formal classroom interactions. The use of purposive sampling allowed the researcher to select participants who were relevant to the research objectives (Creswell, 2009). Institutional ethical clearance was obtained, and participants provided informed consent. To ensure confidentiality, all data were anonymized using pseudonyms following common ethical practices in educational research (Mackey & Gass, 2016).

2.3 Instructional Intervention

The instructional intervention was implemented through a PjBL model adapted from the Gold Standard PjBL framework (Larmer et al., 2018). In this study, TikTok functioned as the central project artefact through which students practiced, recorded, and presented their storytelling performances. The project was conducted over six weeks, representing a complete PjBL cycle consisting of several instructional phases: project orientation, planning, inquiry and rehearsal, artefact creation, presentation, and reflection. The phases and the activities were summarized in Figure 1.



Figure 1. PjBL Instructional Intervention Using TikTok Storytelling

Figure 1 illustrates the six phases of the instructional intervention implemented in this study. The intervention was designed following a PjBL approach in which TikTok served as the main medium for students' storytelling performances. The process began with project orientation and planning, followed by inquiry and rehearsal activities where students developed and practiced their storytelling scripts. Students then produced and presented their TikTok storytelling videos. The final phase involved reflection and evaluation to examine students' learning experiences and speaking development.

2.4 Data Collection Techniques

To obtain a comprehensive understanding of the learning process, this study employed multiple sources of qualitative data. The data were collected through classroom observations, TikTok storytelling videos, reflective writings, and instructional documents. The steps are as follows:

1. First, classroom observations were conducted throughout the six-week project to document how TikTok was integrated into different stages of the PjBL process. The researcher used observation field notes to record classroom interactions, student participation, collaborative discussions, and the ways students utilized TikTok during rehearsal and recording activities.
2. Second, TikTok storytelling videos produced by the students served as the primary artefacts for analyzing speaking performance. Each student pair produced a final storytelling video that demonstrated their oral narrative performance. To evaluate the speaking performances, an analytic speaking rubric adapted from Brown (2004) was used. The rubric included five indicators: Fluency, Pronunciation, Grammatical accuracy, Vocabulary use, and Comprehensibility of the narrative. To enhance analytical rigor, the videos were evaluated by two independent raters. After the initial evaluation, both raters discussed their interpretations to reach a shared understanding of students' speaking performance.
3. Third, student reflective writings were collected at the end of the project. Students responded to several open-ended reflective questions that encouraged them to describe their experiences in using TikTok for storytelling, the challenges they encountered, and their perceived improvement in speaking ability.
4. Finally, instructional documents, including the course syllabus, project guidelines, and learning materials, were also examined to understand the pedagogical design and the role of TikTok within the PjBL framework.

Using multiple data sources allowed the researcher to gain a deeper understanding of both the instructional process and students' learning experiences.

2.5 Data Analysis Techniques

The data were analysed using several qualitative analysis procedures depending on the type of data collected. First, classroom observation notes and instructional documents were analysed using descriptive qualitative analysis to examine how TikTok functioned as a pedagogical artefact across different stages of the PjBL cycle. The analysis focused on identifying patterns of classroom interaction, student engagement, and the role of digital media in supporting speaking practice.

Second, the TikTok storytelling videos were analysed using an analytic speaking performance rubric adapted from Brown (2004). The analysis focused on five aspects of speaking performance: fluency, pronunciation, grammatical accuracy, vocabulary use, and overall comprehensibility. Two raters independently assessed the videos, and their evaluations were subsequently discussed to reach a shared interpretation of students' speaking performance.

Finally, students' reflective writings were analysed using thematic analysis following the procedures proposed by Naeem (2023). The analysis involved several steps. First, data familiarization was conducted through repeated reading of the reflective texts. Second, initial coding was performed by labeling meaningful segments of the data. Third, categorization was carried out by grouping related codes into broader themes. Finally, theme interpretation focused on students' perceptions of speaking development, confidence, and their learning experiences during the project.

To enhance the credibility of the findings, data triangulation was conducted by comparing insights from classroom observations, TikTok artefacts, reflective writings, and instructional documents (Patton, 2015). This triangulation allowed the researcher to cross-validate emerging interpretations and obtain a more comprehensive understanding of the instructional intervention and its impact on students' speaking development.

3 FINDINGS AND DISCUSSION

3.1 Findings

The findings of this study were derived from multiple sources of qualitative data, including classroom observations conducted across six instructional sessions, fourteen final TikTok storytelling videos produced by the students, and students' written reflections. The analysis focuses on identifying patterns in students' speaking experiences and learning processes rather than comparing individual performance statistically. To provide an initial overview of students' speaking challenges during the project, Table 1 summarizes several speaking issues observed at different stages of the project-based learning process.

Table 1. Speaking Problems Identified Across PjBL Stages

PjBL Stage	Identified Speaking Problems	Data Source
Pre-observation	High speaking anxiety; reluctance to initiate speech; heavy reliance on L1	Classroom observation, field notes
Stage 1: Project Introduction	Limited spontaneous responses; uneven participation during discussion	Observation checklist
Stage 2: Rehearsal & Peer Practice	Over-scripted speech; superficial peer feedback; pronunciation insecurity	Observation, peer feedback notes
Stage 3: Performance/Video Production	Anxiety during recording; difficulty maintaining fluency; focus on accuracy over meaning	Video observation, reflective notes

As shown in Table 1, different speaking challenges were observed at various stages of the project. These issues were identified during classroom observations and video analysis and provide contextual information for understanding students' speaking experiences during the project-based learning activity.

3.1.1. TikTok Integration Across the Stages of Project-Based Learning

Classroom observations showed that TikTok was used as a central project artefact throughout several stages of the PjBL cycle. Rather than functioning as a supplementary tool, TikTok was integrated into the main speaking activities of the project. The results are as follows.

1. At the project introduction stage, TikTok was introduced as the platform for the final storytelling task. Students discussed the narrative structure of the selected legend and planned their storytelling in groups.
2. During the rehearsal stage, students recorded and reviewed their storytelling multiple times. Observation notes indicated that the recording process allowed students to rehearse their narratives and adjust their pacing, pronunciation, and delivery.
3. At the performance stage, students produced their final storytelling videos and submitted them as the project output. The videos served as the main artefacts representing students' spoken narratives.
4. During the presentation stage, the completed TikTok videos were shared and discussed in class. Classroom interaction focused on reviewing the recorded storytelling performances.
5. Finally, in the reflection stage, students revisited their TikTok videos and wrote reflections about their speaking experience during the project. The integration of TikTok across these stages of the project is illustrated in Figure 2.

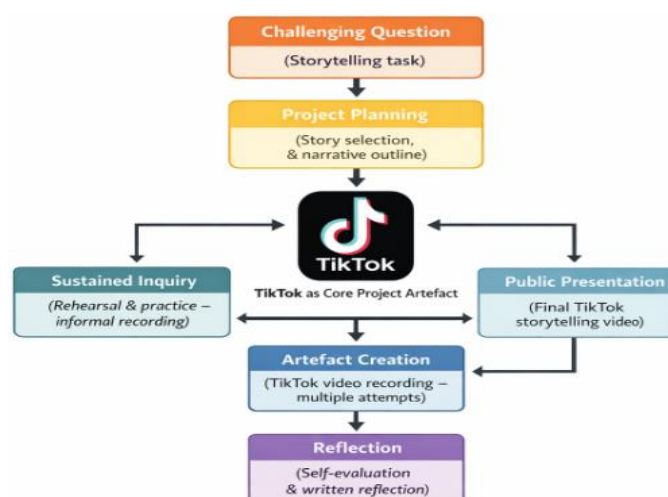


Figure 2. TikTok-Integrated PjBL Cycle for EFL Speaking

As shown in Figure 1, TikTok was used across five stages of the PjBL cycle: project introduction, rehearsal, performance, presentation, and reflection. In each stage, the platform functioned as the main artefact supporting storytelling practice, video production, classroom discussion, and reflective activity.

3.1.2. Patterns of Students' Speaking Performance in TikTok Storytelling Videos

A review of the fourteen final TikTok storytelling videos (three to five minutes in length) revealed several recurring trends in students' speaking performance. The analysis referred to speaking descriptors adapted from Brown, including fluency, pronunciation, grammatical control, vocabulary use, and overall comprehensibility. Rather than evaluating individual students, the analysis aimed to identify patterns that emerged across the video data.

Through qualitative coding, three speaking performance patterns were identified in three categories: 1) more developed, 2) developing, and 3) emerging. These patterns represent analytic groupings used to describe observable variation in the storytelling performances. Students in the more developed pattern demonstrated relatively sustained fluency and clearer narrative organisation. The developing pattern, which represented the largest group, showed generally comprehensible storytelling with occasional hesitation and a limited vocabulary range. Meanwhile, students in the emerging pattern tended to produce shorter utterances with more frequent pauses, although the main storyline could still be understood. The detail patterns are presented in Table 2.

Table 2. Patterns of Students' Speaking Performance in Final TikTok Storytelling

Performance Pattern	Brown-Based Characteristics Observed	Number of Students
Performance Pattern	Sustained fluency, clear narrative organisation, and high comprehensibility	3
Developing	Generally comprehensible narrative, intermittent hesitation, limited lexical range	7
Emerging	Frequent pauses, reliance on memorised expressions, basic narrative meaning conveyed	4

As shown in Table 2, the developing performance pattern appeared most frequently, involving seven students whose narratives were generally understandable despite occasional hesitation. Three students demonstrated more developed performances with smoother narrative delivery, while four students showed emerging patterns characterised by more frequent pauses. Overall, most students were able to communicate the central storyline of their narratives, indicating that comprehensibility was maintained across different levels of speaking performance.

3.1.3. Students' Reflections on Confidence and Fluency Development

The students' written reflections provided insights into how they perceived their speaking development and learning experiences throughout the TikTok-supported project. The analysis revealed several recurring themes that reflected how students experienced the development of their speaking skills during the project. These themes included reduced speaking anxiety, increased self-awareness of speaking performance, improvement through repeated practice, prioritisation of meaning over grammatical accuracy, increased motivation to speak, and awareness of personal speaking progress. Rather than presenting isolated quotations, the reflective accounts are summarised thematically to highlight patterns shared across participants. Representative excerpts are provided to illustrate the identified themes. The thematic patterns derived from the students' reflective accounts are presented in Table 3.

Table 3. Themes From Students' Reflective Accounts on TikTok-Supported PjBL

Themes	Description of Reflections	Representative Excerpt
Reduced speaking anxiety	Students reported feeling less nervous after recording their storytelling videos several times before submitting the final version.	<i>"Awalnya saya merasa gugup, tetapi dengan merekam berkali-kali saya menjadi lebih percaya diri (At first I felt nervous, but after recording many times I became more confident)" (S2)</i>
Increased self-awareness	Watching their own videos helped students recognise aspects of their speaking such as pronunciation, pauses, and delivery.	<i>"Menonton video saya sendiri membuat saya menyadari pengucapan dan jeda saat berbicara "Watching my own video made me realise my pronunciation and pauses when speaking" (S4)</i>
Improvement through repeated practice	Students highlighted that repeated rehearsal and recording helped them organise their ideas and improve fluency.	<i>"Saya berlatih berkali-kali sebelum membuat video final, sehingga saya bisa berbicara dengan lebih baik ("I practised many times before making the final video, so I could speak better)" (S6)</i>
Meaning prioritised over accuracy	Some students realised that communication could still be successful even if their grammar was not perfect.	<i>"Tata bahasa saya belum sempurna, tetapi orang lain tetap bisa memahami cerita saya ("My grammar is not perfect, but other people can still understand my story)" (S9)</i>
Increased motivation to speak	The use of TikTok as a digital platform increased students' interest and motivation to	<i>"Menggunakan TikTok membuat saya lebih tertarik dan termotivasi untuk berbicara dalam bahasa Inggris ("Using TikTok made me</i>

	participate in the speaking activity.	more interested and motivated to speak in English)" (S11)
Awareness of speaking progress	Students compared their current speaking ability with their previous experiences and recognised improvement.	"Dibandingkan sebelumnya, sekarang saya lebih berani untuk berbicara bahasa Inggris (Compared to before, now I am braver to speak English)" (S13)

Note: Themes were derived through thematic coding of students' written reflections. Indonesian excerpts are presented alongside English translations to preserve the original expressions of the participants

Following the thematic patterns presented above, the reflective accounts indicate that many students perceived noticeable changes in their speaking confidence and awareness during the project. Several students described how the opportunity to rehearse and record their storytelling videos multiple times allowed them to practise speaking in a less pressured environment. Watching their own videos also encouraged self-evaluation, particularly in relation to pronunciation, pacing, and delivery.

In addition, some students reflected that effective communication of meaning was more important than grammatical perfection when telling their stories. Even when they recognised linguistic limitations, they reported that their narratives could still be understood by others. These reflections suggest that the TikTok-supported project provided opportunities for students to practise speaking repeatedly while becoming more aware of their speaking processes and perceived progress throughout the learning activities.

3.2 Discussion

The first finding indicates that peer-supported rehearsal played a significant role in the early stage of the project. Students repeatedly practiced storytelling in groups and provided feedback to each other before producing the final video artefact. This finding suggests that speaking development was facilitated through collaborative rehearsal, which gradually increased students' speaking confidence. These findings are in line with previous studies on collaborative digital storytelling integrated with PjBL, which report that peer interaction during narrative tasks can enhance learners' participation and reduce speaking anxiety in EFL contexts (Siahaan & Siahaan, 2023; Va & Mai, 2024). Similarly, the study by Yuan and Hashim (2022) found that short video apps can sustain students' interest in learning English. These short videos, in learning speaking, encouraged students to practice speaking more actively through peer interaction and content production.

However, while these studies mainly highlight increased engagement and motivation, the present study shows that peer rehearsal itself functions as a mechanism shaping the emergence of speaking performance patterns during the PjBL process. A possible explanation is that repeated rehearsal allowed learners to negotiate meaning, experiment with expressions, and refine their narrative delivery before recording the final artefact (Ollerhead & Pennington, 2024). This interpretation is supported by sociocultural theory, which emphasizes that language development occurs through mediated social interaction (Vygotsky, 1978), and by the Output Hypothesis, which proposes that producing language encourages learners to notice gaps in their interlanguage and refine their linguistic resources (Li & Li, 2024).

The second finding highlights the importance of repeated recording and revision of storytelling performances through TikTok video production. Students were observed rehearsing, recording, reviewing, and revising their speaking performances several times before producing their final videos. This iterative process suggests that speaking improvement emerged from cycles of production and reflection rather than from a single speaking attempt. This finding corroborates previous research on short-video platforms in language learning, which reports that TikTok-based speaking activities can enhance fluency and speaking confidence through multimodal practice (Hongsa et al., 2023). Similarly, Hamsia (2024) found that integrating TikTok into speaking tasks had a positive influence on students' oral proficiency. However, these studies focus on the outcomes of TikTok-based activities, such as improved fluency or increased motivation. In contrast, the present study provides a more process-

oriented explanation by showing how repeated recording enables students to evaluate and adjust their performances during the learning process.

Based on the findings, one possible cause is that video recording allows learners to observe their own speaking and identify weaknesses in pronunciation, pacing, or delivery (Tan et al., 2022). This process reflects metacognitive learning, in which learners regulate their performance through monitoring and evaluation (Dignath et al., 2023; Stanton et al., 2021). In addition, the repeated recording process creates opportunities for task repetition, which has been shown to support speaking fluency as learners gradually develop greater automaticity in language production.

The third finding concerns the role of TikTok videos as multimodal artefacts within the PjBL process. Students' storytelling performances integrated verbal narration with gestures, facial expressions, and visual presentation elements. These findings are consistent with those of Ollerhead and Pennington (2024), Murad et al. (2023), and Mai et al. (2024) on digital storytelling, which indicates that multimedia storytelling tasks enable learners to construct meaning through multiple communicative modes and increase engagement in speaking activities. However, previous studies on TikTok and short-video platforms in higher education have largely focused on student perceptions, engagement levels, and general academic outcomes. For instance, Yang et al. (2025) highlight the popularity of TikTok among university students, but provide a limited explanation of how speaking skills develop through sustained instructional processes. Likewise, Benlaghrissi and Ouahidi (2024) noted that although the pedagogical potential of short-video platforms is widely recognised, few studies examine how speaking develops within a complete PjBL cycle.

The present study extends this line of research by conceptualising TikTok not merely as a tool for submitting assignments but as a central project artefact that mediates reflection and performance development. A possible explanation is that the multimodal features of TikTok encourage students to pay attention not only to linguistic accuracy but also to expressive and visual aspects of storytelling. This interpretation aligns with multimodal communication theory, which proposes that meaning is constructed through the interaction of multiple semiotic resources such as language, gesture, and visual representation (Rahmanu & Molnár, 2024).

Despite these insights, several limitations should be acknowledged. The study involved a relatively small sample ($n = 14$), which limits the generalisability of the findings. In addition, the research design did not include pre- and post-test measurements of speaking proficiency, and the intervention lasted only six weeks. Furthermore, the researcher also served as the course instructor, which may introduce potential bias in classroom observation. Future research could address these limitations by involving larger samples, longer interventions, and independent evaluators.

Despite these limitations, the study contributes to the growing body of research on technology-enhanced language learning by demonstrating that TikTok can function as a central artefact within project-based speaking tasks, enabling repeated rehearsal, reflective learning, and multimodal storytelling. By analyzing speaking development as an evolving performance pattern, this study offers a more process-oriented understanding of how digital media can support speaking development in tertiary EFL contexts.

4 CONCLUSION

This study investigated the development of students' speaking performance through project-based learning integrating TikTok as a digital storytelling platform. The findings indicate that students' speaking development emerged as dynamic performance patterns shaped by three key processes: peer-supported rehearsal, repeated video production, and multimodal storytelling practice. These processes enabled students to practise speaking repeatedly, reflect on their performances, and gradually improve their confidence and fluency within the project cycle. This study contributes empirically, theoretically, and pedagogically to the understanding of technology-mediated speaking development in project-based learning environments. Empirically, this study provides evidence that integrating short-video platforms into project-based speaking tasks can facilitate repeated practice, collaborative interaction,

and reflective speaking performance among tertiary EFL learners. Theoretically, the findings contribute to understanding speaking development from a performance-pattern perspective, highlighting how speaking competence evolves through iterative production, social interaction, and reflective practice within technology-mediated learning environments. From a pedagogical perspective, the study suggests that short-video platforms such as TikTok can function not merely as supplementary tools but as central artefacts in project-based speaking tasks. By allowing students to rehearse, record, review, and refine their oral performances, digital storytelling activities can create a more engaging and reflective learning environment that supports speaking practice in tertiary EFL classrooms.

Despite these contributions, several limitations should be acknowledged. The study involved a relatively small sample, lacked a comparison group, and was conducted over a relatively short period without longitudinal follow-up. Future research could address these limitations by employing mixed-methods approaches, longitudinal designs, and cross-institutional samples to further examine how digital project-based learning supports the long-term development of speaking skills.

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