

ENHANCING EFL VOCABULARY LEARNING THROUGH INSTAGRAM: A COMPARATIVE STUDY WITH FACEBOOK

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Abstract. This study investigates Instagram's potential as a supplementary vocabulary learning resource for English as a Foreign Language (EFL) students. Using a quasi-experimental design, eleventh-grade students at SMKN 1 Banjarmasin were divided into two groups: one using Instagram and the other Facebook. Pre-tests and post-tests measured vocabulary improvement after four integrated lessons. The findings reveal that Instagram's visual and interactive features significantly enhance vocabulary acquisition compared to Facebook, as shown by higher post-test scores in the experimental group. This study highlights Instagram's role in promoting engaging and personalized learning experiences, contributing to the growing discourse on technology-enhanced language learning. The insights provided can guide educators and policymakers in leveraging social media for effective EFL instruction.

Keywords: EFL students, Facebook, Instagram, social media, vocabulary acquisition.

INTRODUCTION

The integration of technology into education has transformed the landscape of teaching and learning, especially for English as a Foreign Language (EFL) students. Among the technological advancements, social media platforms have emerged as powerful tools that complement traditional language learning methods. These platforms offer unique opportunities to enhance vocabulary acquisition through interactive, context-rich, and student-centered experiences. Among these platforms, Instagram stands out for its visual and interactive features, which cater to diverse learning styles. With tools like captions, hashtags, and multimedia content, Instagram allows students to explore language topics, interact with native speakers, and practice language skills in an informal setting, making it an innovative and valuable resource for language education.

The role of Instagram in vocabulary learning has been widely studied. Research shows its potential in improving vocabulary retention, comprehension, and student motivation. For instance, research found that students actively engage with English content on Instagram which supports vocabulary development (Putri, 2022). Similarly, researchers highlighted its effectiveness in fostering student interaction and output, particularly when students interact with authentic and diverse language content (Abdulaziz Al Fadda, 2020; Aloraini, 2018). However, challenges remain, including the informal nature of Instagram's content, its heavy reliance on visuals, and potential distractions that may reduce its effectiveness in promoting well-rounded language skills like listening and speaking. These limitations underscore the importance of using Instagram strategically to complement, rather than replace, traditional instructional methods.

Vocabulary learning is central to language acquisition and involves not only acquiring and understanding new words but also applying them in meaningful contexts. Effective vocabulary learning encompasses several critical components. Students must grasp word meanings, which can be achieved through direct instruction or inferring meanings from context (ALQAHTANI, 2015). Furthermore, repeated exposure to vocabulary in diverse situations deepens knowledge, enabling students to understand multiple forms and uses of words (Webb, 2012). Contextual learning plays a vital role in retention and application, as it connects vocabulary to real-life scenarios, making the learning process more relevant and memorable (Antonio et al., 2018). While modern tools like Instagram provide rich contexts for vocabulary acquisition, traditional methods such as rote

memorization and translation pairs still serve as foundational techniques, albeit with limitations in engagement and long-term retention (Hubackova & Semradova, 2015; Sagarra & Alba, 2006).

The challenges EFL students face in vocabulary acquisition highlight the need for innovative solutions. Limited exposure to English outside the classroom often results in insufficient opportunities to practice and retain vocabulary. Furthermore, understanding vocabulary in context is difficult, especially when dealing with idiomatic expressions and phrases (Hunt & Beglar, 2005). Retention issues due to lack of practice, along with differences in pronunciation and grammar between English and students' native languages, further complicate the learning process (Al-Seghayer, 2019; Khoshsima et al., 2015). These barriers emphasize the importance of integrating supplementary learning resources to bridge gaps in traditional approaches and address these persistent challenges.

Supplementary learning resources, such as digital platforms and social media, offer flexible, engaging, and personalized learning experiences that can enhance vocabulary acquisition. Digital tools like Instagram and Facebook allow students to engage with authentic materials and participate in collaborative and interactive learning environments. For instance, social media facilitates self-directed learning and cultural immersion by connecting students with native speakers and authentic content (Ahmed, 2020; Sukri et al., 2018). Research also shows that these platforms motivate students and improve specific language skills such as writing, vocabulary and pronunciation (Derakhshan & Hasanabbasi, 2015; Xodabande, 2017).

Comparative studies between traditional and social media-based vocabulary learning methods further highlight the advantages of digital tools. Social media platforms provide students with opportunities to engage in meaningful and collaborative learning activities, which surpass traditional techniques in fostering motivation and retention (Alsheehri et al., 2020; Shanthi & Rajkumar, 2020). For example, platforms like Facebook and Telegram consistently outperform traditional methods in improving vocabulary acquisition by offering interactive, student-centred environments (Heidari & Onvani, 2018). This demonstrates the potential of combining traditional methods with modern tools like Instagram to create a comprehensive and effective learning approach.

This research seeks to explore Instagram's potential as a supplementary vocabulary learning resource for EFL students. Specifically, it aims to compare Instagram's effectiveness with traditional methods accompanied with Facebook as its comparison in enhancing vocabulary acquisition. By examining how Instagram's visual and interactive features can be strategically leveraged, this study addresses the challenges faced by EFL students and offers practical insights into integrating modern digital tools into language education. By combining traditional methods with innovative approaches, educators can create a more engaging and effective learning environment that meets the diverse needs of today's students.

RESEARCH METHOD

This study employs a quantitative approach to examine the effectiveness of Instagram as a supplementary vocabulary learning tool for English as a Foreign Language (EFL) students. A quasi-experimental design was chosen, which allows for the comparison of two groups—an experimental group using Instagram and a control group using Facebook—without randomization of participants. This design is particularly useful in educational settings where complete randomization is often impractical (Shadish et al., 2002)

Table 1. Design of research plan

GROUP	PRE-TEST (VOCABULARY KNOWLEDGE)	INTERVENTION	POST-TEST (VOCABULARY KNOWLEDGE)
Control Group (Vocabulary learning through Facebook)	Measure vocabulary knowledge before intervention	Vocabulary learning and Facebook used as supplementary tool for a set period of time	Measure vocabulary knowledge after intervention
Experimental Group (Vocabulary learning through Instagram)	Measure vocabulary knowledge before intervention	Vocabulary learning and Instagram used as supplementary tool for a set period of time	Measure vocabulary knowledge after intervention

The research is grounded in three theoretical frameworks. First, Technology-Enhanced Language Learning (TELL) highlights how technological tools can improve language acquisition by fostering engagement and providing interactive learning environments. Second, Multimedia Learning Theory (Mayer) emphasizes the importance of visual and multimedia content in enhancing vocabulary retention and comprehension. Finally, Connectivism (Siemens & Downes) underscores the role of digital platforms in facilitating learning through networks and interaction, making Instagram a suitable medium for this study.

Data collection involved multiple instruments to ensure a comprehensive evaluation of vocabulary acquisition. Pre-test and post-test, designed based on CEFR A2-level vocabulary categories, were used to measure changes in vocabulary knowledge. Observational checklists documented student engagement and instructional effectiveness during the learning sessions. Additionally, curriculum documents, such as “Alur Tujuan Pembelajaran” (ATP), were used to align learning activities with educational objectives.

Table 2. Blueprint of test instrument

Vocabulary Level	Question Type	Category	Pre-test	Post-test
A2 level of the Common European Framework of Reference (CEFR)	Multiple Choices	Appliances	2 questions	2 questions
		Clothes and accessories	4 questions	4 questions
		Communication and technology	1 question	1 question
		Documents and texts	2 questions	2 questions
		Education	3 questions	3 questions
		Entertainment and media	1 question	1 question
		Family and friends	2 questions	2 questions

		Food and drink	3 questions	3 questions
		Health, medicine, and exercise	2 questions	2 questions
		House and home	4 questions	4 questions
		Personal feelings, opinions, and experience	4 questions	4 questions
		Places: Countryside	2 questions	2 questions
Total questions			30 questions	30 questions

The study followed a structured procedure. Initially, test instruments were developed and validated through pilot testing to ensure reliability and content validity. The intervention was conducted over several weeks, with the experimental group engaging in Instagram-based learning activities using features like interactive Instagram stories and multimedia posts. In contrast, the control group received vocabulary instruction via Facebook. Both groups participated in structured learning sessions, with identical instructional content delivered through the respective platforms.

Data analysis focused on assessing the effectiveness of the interventions. Paired t-tests were used to compare pre-test and post-test scores within each group, identifying any significant improvements in vocabulary acquisition. Additionally, independent t-tests were employed to compare post-test performance between the experimental and control groups, evaluating the relative effectiveness of Instagram and Facebook as supplementary learning tools.

This methodological approach ensures a robust evaluation of Instagram's potential in vocabulary learning. By integrating established theories with practical applications, the study seeks to provide insights into the role of social media in modern language education, offering strategies for leveraging digital platforms to complement traditional methods.

RESULT AND ANALYSIS

This study was conducted to evaluate the effectiveness of Instagram as a supplementary vocabulary learning tool for English as a Foreign Language (EFL) students compared to Facebook. The research employed a quasi-experimental design, with pre-test and post-test assessments used to measure vocabulary acquisition in two groups: an experimental group utilizing Instagram and a control group utilizing Facebook. The study aimed to assess the relative effectiveness of these platforms in enhancing vocabulary knowledge, with statistical analyses used to identify significant differences in performance within and between groups.

Initially, the study design included the use of t-tests for data analysis. However, preliminary checks on the distribution of the data revealed that the scores did not meet the assumption of normality required for parametric tests like t-tests. As a result, non-parametric alternatives were employed: the Wilcoxon Signed-Rank Test was used to evaluate pre-test and post-test improvements within each group, while the Mann-Whitney U Test was utilized to compare post-test results between the experimental and control groups. These non-parametric tests are robust to violations of normality assumptions and provide reliable results for analyzing differences in ordinal or non-normally distributed data (McKnight & Najab, 2010).

In the following sections, the results for the experimental and control groups are presented in detail, followed by a comparative analysis. The discussion explores the implications of these findings for EFL instruction, emphasizing the importance of selecting appropriate tools and methods to optimize student outcomes in vocabulary learning.

1.1 Experimental Group Results

The experimental group in this study consisted of EFL students who utilized Instagram as a supplementary vocabulary learning tool. The intervention involved four structured sessions, where students engaged with Instagram's visual and interactive features to enhance their vocabulary acquisition. Activities included following a dedicated Instagram account for vocabulary learning; @vocabvoyagers, interacting with posts containing new vocabulary items, participating in Instagram Stories quizzes, and creating their own posts incorporating newly learned words these activities aligned with Multimedia Learning Theory, which emphasizes the integration of visual and textual content to improve learning outcomes (Mayer, 2002).

Prior to the intervention, the experimental group had an average pre-test score of 81. After completing the Instagram-based activities, the post-test results showed a significant improvement, with an average score of 98. The increase in scores highlights the effectiveness of Instagram in fostering vocabulary acquisition. To confirm this improvement statistically, the Wilcoxon Signed-Rank Test was applied. The analysis yielded a Z value of -4.951 and a p-value of <0.001, indicating that the improvement in vocabulary scores was statistically significant.

Table 3. Experimental group rank

		Ranks		
		N	Mean Rank	Sum of Ranks
Post-test - Pre-test	Negative Ranks	0 ^a	.00	.00
	Positive Ranks	29 ^b	15.00	435.00
	Ties	5 ^c		
	Total	34		

a. Post-test < Pre-test

b. Post-test > Pre-test

c. Post-test = Pre-test

Table 4. Experimental group test statistics

Test Statistics ^a	
	Post-test - Pre-test
Z	-4.719 ^b
Asymp. Sig. (2-tailed)	<.001

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

Qualitative observations also supported these findings. Students in the experimental group reported high levels of engagement and motivation during the Instagram-based learning activities. Features such as caption and hashtags provided context and relevance, allowing students to connect new vocabulary with real-world scenarios. This supports findings by Putri (2022), who noted that Instagram enhances student motivation through its engaging and interactive interface. Additionally, the informal learning environment created by Instagram allowed students to practice vocabulary in a less pressured setting, aligning with research by Sukri et al. (2018) on the role of social media in informal language learning.

The success of Instagram as a supplementary tool can be attributed to its ability to cater to diverse learning styles. Visual students benefited from infographics and multimedia content, while interactive features like quizzes supported active recall and engagement. These results aligned with studies by Aloraini (2018), who found that Instagram posts focusing on vocabulary elicited higher student output compared to grammar-focused posts.

In conclusion, the experimental group demonstrated significant improvements in vocabulary acquisition through Instagram. The platform's visual and interactive features not only enhanced learning outcomes but also increased students motivation and engagement, making it a promising tool for EFL vocabulary instruction.

1.2 Control Group Result

The control group in this study comprised EFL students who used Facebook as a supplementary vocabulary learning tool. Similar to the experimental group, the intervention for the control group consisted of four structured sessions. The instructional activities included accessing posts containing new vocabulary items and answering interactive Facebook stories. these activities were designed to utilize Facebook's collaborative and interactive features, aligning with research highlighted Facebook's potential to enhance vocabulary knowledge through structured interactions (Kabilan et al., 2010; Kamarul et al., 2016). The pre-test results for the control group showed an average of 85. After the intervention, the post-test scores increased to an average of 96, indicating a significant improvement in vocabulary acquisition. The statistical analysis using the Wilcoxon Signed-Rank test yielded a Z value of -4.719 and a p-value of <0.001, confirming that the improvement in vocabulary knowledge was statistically significant. However, the magnitude of improvement was slightly lower than that observed in the experimental group.

Table 5. Control group rank

		Ranks		
		N	Mean Rank	Sum of Ranks
Post-test - Pre-test	Negative Ranks	0 ^a	.00	.00
	Positive Ranks	32 ^b	16.50	528.00
	Ties	2 ^c		
	Total	34		

a. Post-test < Pre-test

b. Post-test > Pre-test

c. Post-test = Pre-test

Table 6. Control group test statistics

Test Statistics ^a	
	Post-test - Pre-test
Z	-4.951 ^b
Asymp. Sig. (2-tailed)	<.001

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

Despite the structured activities, qualitative observation revealed that the control group faced several challenges in engaging with the Facebook platform. Some students reported difficulties navigating Facebook's interface, which impacted their participation in the activities and contributed to reduced student motivation. These findings align with research which noted that the effectiveness of Facebook in language learning depends heavily on the quality of content and student engagement (Al-Khazaali & Amirian, 2023).

Another notable factor was the difference in familiarity with the platform. While Instagram is widely used by younger generations, Facebook's user base tends to include an older demographic, which may explain the lower engagement levels among the control group students. This observation is consistent with studies, which highlighted the importance of platform relevance and user familiarity in maximizing learning outcomes (Ibrahim MUKHLIF & Challob, 2021).

While the control group demonstrated significant improvements in vocabulary acquisition, the learning experience lacked the interactive and dynamic elements provided by Instagram. The discussion-based approach on Facebook was effective for collaborative learning but less engaging for visual students. Moreover, the limited use of multimedia content on Facebook did not fully capitalize on the benefits of visual aids, as emphasized by Multimedia Learning Theory (Mayer, 2002).

In summary, the control group's use of Facebook for vocabulary learning resulted in notable improvements. Still, the platform's limitations in interactivity and engagement suggest that it may not be as effective as Instagram for fostering vocabulary retention and student motivation. These findings underscore the importance of selecting tools that align with students' preferences and learning styles to optimise educational outcomes.

1.3 Comparative Analysis

The comparative analysis aimed to evaluate the relative effectiveness of Instagram and Facebook as supplementary tools for vocabulary learning among EFL students. Post-test scores from the experimental and control groups were analyzed using the Mann-Whitney U Test, a non-parametric method suitable for comparing two independent groups with non-normally distributed data (McKnight & Najab, 2010).

The results showed a mean rank of 40.03 for the experimental group and 28.97 for the control group. The U value of 390.000 and the p-value of 0.008 indicated a statistically significant difference in performance between the two groups, favouring Instagram. These findings confirm that Instagram offers greater improvement in vocabulary acquisition compared to Facebook, corroborating previous studies that highlight Instagram's unique strengths as a learning tool (Gonulal, 2019; Yanyan Aida Rohman et al., 2022).

Table 7. Rank statistics for English scores across two groups

		Ranks		
English Score	Class	N	Mean Rank	Sum of Ranks
	Experimental Group	34	40.03	1361.00
	Control Group	34	28.97	985.00
	Total	68		

Table 8. Test statistics for English scores across two groups

Test Statistics ^a	
	English Score

Mann-Whitney U	390.000
Wilcoxon W	985.000
Z	-2.650
Asymp. Sig. (2-tailed)	.008

a. Grouping Variable: Class

One of the key differentiators was the engagement level observed during the interventions. Instagram's visual and interactive features, such as quizzes and multimedia posts, resonated more effectively with students, fostering higher participation and motivation. In contrast, Facebook lacked the dynamic and user interface that Instagram provided. This aligns with findings by Aloraini (2018), who noted that Instagram's emphasis on visual and interactive content makes it particularly effective for vocabulary retention and student motivation.

Additionally, the context-rich environment offered by Instagram allowed students to connect vocabulary to real-world scenarios, enhancing comprehension and retention. For instance, students in the experimental group frequently interacted with hashtags and captions, enabling them to explore vocabulary within relevant and authentic contexts. This supports the principles of Connectivism (Siemens & Downes), which emphasize the importance of contextual and networked learning experiences in modern education.

The results also highlight the role of platform familiarity. Instagram's popularity among younger users likely contributed to the experimental group's higher engagement levels, as students were already comfortable navigating the platform. Facebook, on the other hand, was less familiar to some participants, which may have hindered their overall engagement and learning outcomes.

Overall, the comparative analysis underscores Instagram's potential as a superior supplementary tool for vocabulary learning in EFL contexts. Its ability to combine visual content, interactivity, and contextual relevance makes it a more effective platform for fostering vocabulary retention and student motivation. These findings suggest that educators seeking to integrate social media into language instruction should prioritize platforms that align with students' preferences and offer rich, engaging learning experiences.

CONCLUSION

This study aimed to determine whether Instagram could serve as a supplementary vocabulary learning resource for EFL students and compare its effectiveness with Facebook. The findings confirm that Instagram is a highly effective tool for enhancing vocabulary acquisition, providing significant improvements in comprehension, retention, and student motivation. By leveraging Instagram's visual and interactive features, students were able to engage with vocabulary in contextually rich and dynamic ways that enhanced their learning outcomes.

The comparative analysis revealed that Instagram outperformed Facebook in fostering vocabulary mastery. The experimental group using Instagram demonstrated higher post-test scores and greater engagement levels compared to the control group using Facebook. This difference underscores Instagram's ability to cater to modern students' preferences for visually appealing and interactive platforms, aligning with theories of Technology-Enhanced Language Learning and Connectivism.

The study concludes that Instagram offers unique advantages as a supplementary tool for vocabulary learning in EFL contexts. It provides a personalized and flexible learning experience, enabling students to explore vocabulary through authentic content and real-world applications. However, the findings also highlight the need for careful integration of digital tools into language instruction to address challenges such as platform familiarity and content quality.

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