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## BALANCING TRADITION AND TECHNOLOGY: A COMPARATIVE STUDY ON VOCABULARY ACQUISITION IN INTERMEDIATE ENGLISH LEARNERS

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### ABSTRACT

This study explores the effectiveness of traditional and technological methods in vocabulary acquisition among intermediate-level English learners. A mixed-methods approach was used, combining quantitative data from pre-tests, weekly exams, and post-tests with qualitative insights gathered from surveys and interviews. Over a six-week period, 30 students participated in lessons utilizing both traditional teacher-led instruction and technological tools such as mobile apps and digital flashcards. The results revealed that while the traditional group showed steady but moderate improvement, the technological group experienced more rapid and significant gains in vocabulary retention. Interviews with participants highlighted the strengths and challenges of both methods, emphasizing the need for a blended learning approach. This study suggests that combining traditional and technological methods can offer a more comprehensive and effective learning experience, catering to diverse learner preferences and enhancing overall vocabulary retention.

### KEYWORDS

Vocabulary acquisition, traditional methods, technological tools, blended learning, Mobile-Assisted Language Learning (MALL), intermediate-level English learners, spaced repetition, digital flashcards, language education, mixed-methods study.

## INTRODUCTION

Vocabulary acquisition has long been a crucial element in language education, traditionally relying on methods such as repetition, memorization, and teacher-led instruction. While these approaches have laid the foundation for structured language learning, they often lack the flexibility required to engage learners in a more dynamic and interactive manner. Over the years, technological advancements have introduced new tools that complement traditional methods, particularly through blended learning models, which combine face-to-face instruction with online resources. This blended approach enhances the learning experience by offering flexibility and interactivity, thus catering to the needs of diverse learners (Alammary et al., 2014).

Blended learning offers students the opportunity to personalize their learning experiences, allowing them to interact with material at their own pace and according to their individual preferences (Tosun, 2015). In the context of vocabulary acquisition, such personalization can be highly effective, as mobile-assisted tools enable learners to practice vocabulary both inside and outside the classroom. Zhang et al. (2011) note that students using mobile tools demonstrate greater short-term retention of vocabulary compared to those relying on traditional, paper-based methods. This indicates that technology not only enhances learning but also complements

traditional teaching strategies, contributing to improved outcomes.

However, while technology-based approaches provide numerous benefits, the role of traditional face-to-face instruction remains indispensable. Graham et al. (2013) stress that while blended learning offers flexibility, in-person teaching is critical for immediate feedback and fostering a collaborative learning environment. Similarly, Garrison and Kanuka (2004) emphasize that online tools should enhance, rather than replace, face-to-face interactions, creating a balanced, pedagogically sound learning environment.

Mobile-assisted language learning (MALL) has been particularly effective in improving both the retention and comprehension of vocabulary through varied and flexible practice (Khazaei & Dastjerdi, 2011). These tools allow students to engage with vocabulary in diverse contexts, thereby deepening their understanding of how words function in real-life situations. As blended learning continues to expand, educators are encouraged to redesign courses that seamlessly integrate both traditional and digital methods to form a cohesive learning experience (Oliver & Trigwell, 2005).

Research indicates that incorporating digital tools into traditional teaching methods enhances student motivation and engagement, resulting in more

effective language learning (Pazio, 2010). This is especially true for vocabulary learning, where interactive tools can provide additional opportunities for practice and engagement. However, the key challenge remains finding the right balance between traditional and technological methods. As both approaches offer unique advantages, it is crucial to use them in a complementary manner to support learners' overall progress (Tosun, 2015).

This study seeks to explore how intermediate-level English learners can benefit from both traditional and technological methods in vocabulary acquisition. By examining the effectiveness of these approaches, the research aims to contribute to the growing discourse on blended learning in language education, focusing on how the integration of these methods can optimize student outcomes.

## LITERATURE REVIEW

The literature on vocabulary learning highlights the roles of both traditional and technological methods, emphasizing their individual strengths and the growing importance of blended learning approaches.

### Traditional Methods in Vocabulary Learning

Traditional vocabulary learning methods, such as repetition, memorization, and teacher-led instruction, have long been central to language education. These strategies create structured environments where

learners systematically acquire vocabulary, reinforced by techniques like drilling and dictation. Teachers play a pivotal role in guiding this process, ensuring repeated exposure to vocabulary, which, as Harmer (2007) notes, strengthens cognitive links between new words and their meanings. Such rote learning is particularly effective for beginners. Additionally, traditional methods allow for immediate feedback from teachers on pronunciation and word usage, as noted by Graham et al. (2013). However, these methods often lack flexibility and may not engage learners who prefer more interactive or autonomous approaches, as highlighted by Bielawski and Metcalf (2003). Additionally, while repetition aids short-term retention, traditional methods may not foster long-term retention or real-world application of vocabulary (Thornbury, 2002). As education shifts towards more active, technology-driven models, scholars argue for integrating traditional methods with technology, particularly mobile-assisted learning, to provide a more comprehensive learning experience (Graham & Roberts, 2007; Kukulska-Hulme & Shield, 2008).

### Technological Tools in Vocabulary Learning

Technological tools have transformed vocabulary learning, providing flexible, interactive, and personalized opportunities. Mobile-Assisted Language Learning (MALL), via apps like Duolingo and Quizlet, allows learners to engage with vocabulary anywhere, enhancing retention through multimodal activities

(Pazio, 2010). These apps support spaced repetition, a proven method for long-term retention (Nation, 2013). Learning Management Systems (LMS), such as Moodle, also offer vocabulary quizzes and multimedia tasks, enabling self-paced learning and review (Dudeney & Hockly, 2012). Computer-Assisted Language Learning (CALL) programs like Rosetta Stone incorporate gamified exercises, while digital flashcards such as Anki integrate spaced repetition algorithms to enhance retention (Mayer, 2009). Multimedia resources like YouTube and podcasts provide real-world exposure to vocabulary, improving understanding and application (Kim, 2012). Additionally, tools like speech recognition apps offer real-time feedback on pronunciation (Chapelle, 2009), and collaborative tools like wikis and blogs encourage peer interaction, fostering authentic use of vocabulary (Warschauer, 2010). In sum, technological tools offer a personalized, interactive approach that, when combined with traditional methods, provides a balanced and effective vocabulary learning experience.

### Blended Learning Approaches

Blended learning combines traditional face-to-face instruction with technological tools, offering a dynamic and flexible approach to vocabulary acquisition. This model caters to diverse learning styles, allowing learners to engage with vocabulary through various modalities—visual, auditory, and kinesthetic—while

promoting frequent practice and retention (Pazio, 2010). Blended learning also integrates various learning theories, such as constructivism and behaviorism, through interactive digital tools and repetitive online exercises (Vygotsky, 1978; Marsh, 2012). Research shows that students using both traditional and mobile learning tools outperform those relying solely on traditional methods, as mobile tools enable more frequent and flexible practice (Khazaei & Dastjerdi, 2011; Zhang, Song, & Burston, 2011). However, Marsh (2012) cautions that technology should complement, not replace, traditional teacher guidance. In conclusion, blended learning enhances vocabulary retention and promotes learner autonomy by combining the strengths of traditional methods with the flexibility of technology, making it an effective approach for modern language education.

### METHODOLOGY

The research employed a mixed-method approach to investigate the effectiveness of traditional and technological methods for vocabulary acquisition among intermediate-level English learners. This approach combined quantitative methods, which measured vocabulary progress through pre-tests, weekly exams, and post-tests, and qualitative methods, which explored student perceptions through surveys and interviews. The goal was to gain a comprehensive understanding of how these two teaching methods impacted vocabulary learning.

Quantitative data were gathered through a pre-test, which provided baseline knowledge of students' vocabulary proficiency, followed by weekly exams to monitor progress during the study, and a post-test to evaluate overall improvement. The study also involved a paper-based survey that explored the participants' perceptions of traditional and technological vocabulary learning methods. Semi-structured interviews were conducted with five participants to gain deeper insights into the key themes revealed by the survey.

The study participants included 30 students from diverse academic backgrounds and ages, ranging from 16 to over 26 years. Half of the participants were undergraduate students, while the other half were postgraduates. Their English proficiency levels varied from pre-intermediate to upper-intermediate, with most being at the intermediate level. The group was predominantly female, with 26 females and 4 males. This demographic distribution allowed the study to capture a broad range of perspectives on vocabulary learning.

A variety of instruments were used to collect data. These included pre-tests and post-tests to assess initial vocabulary knowledge and improvements, weekly exams to track progress, a survey to gather student perceptions, and interviews to explore these perceptions in greater detail.

The study was conducted over six weeks, with students attending three vocabulary lessons per week. The lessons were split between traditional methods, like teacher-led discussions and physical flashcards, and technological methods, such as mobile apps, digital flashcards, and online quizzes. Students' progress was measured through the weekly exams, and at the end of the study, participants completed the survey to evaluate the methods they experienced. Follow-up interviews with selected participants allowed for a more in-depth understanding of their experiences.

The data analysis involved both quantitative and qualitative methods. Descriptive statistics were used to analyze the pre-test, post-test, and weekly exam scores, while the survey data were processed to identify trends in participants' perceptions. The interview data were analyzed through thematic analysis, identifying key themes such as learner autonomy and engagement, which were cross-referenced with the survey results to provide a comprehensive understanding of the students' experiences with different vocabulary learning methods.

## RESULTS

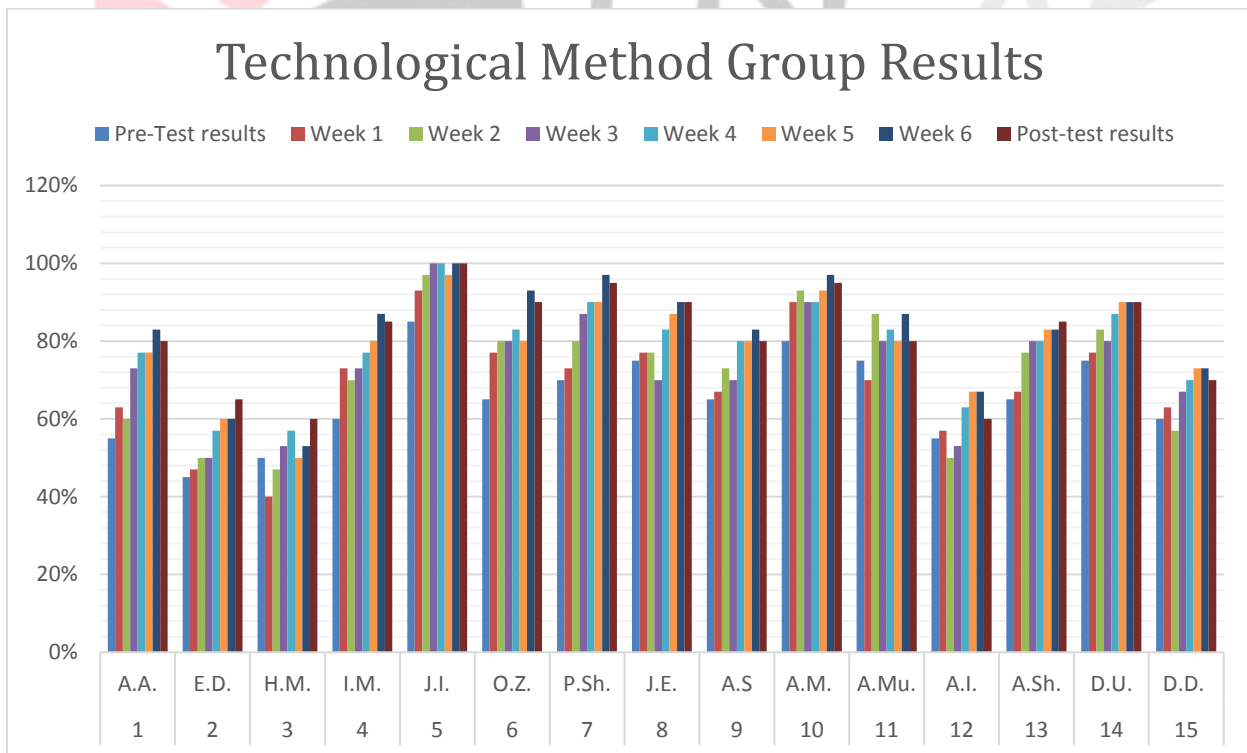
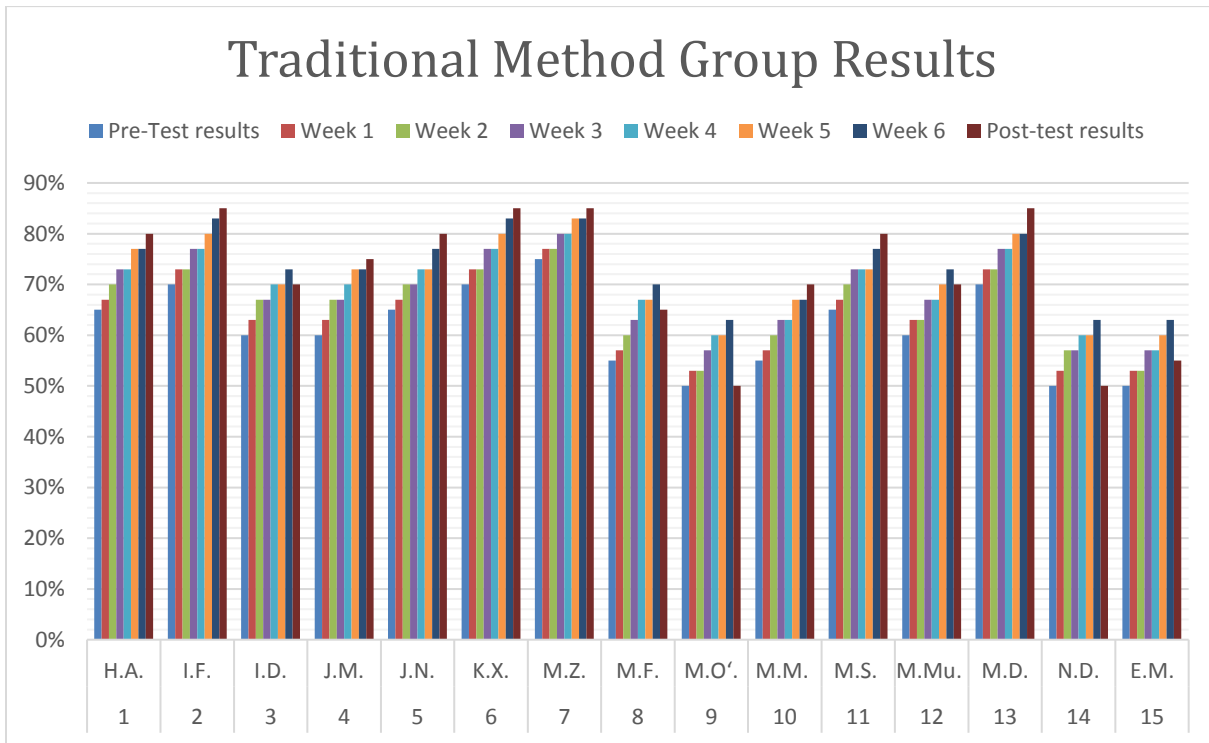
The traditional vocabulary learning group demonstrated steady improvement over the six-week period, with pre-test scores ranging from 50% to 75%

and post-test results between 50% and 85%. On average, students in this group improved by 15% to 20%, with the highest performers, such as M.Z., F.I., and K.X., showing strong progress, ending with post-test scores of 85%. Students like A.H. and N.J. also saw substantial gains, starting at 65% and finishing at 80%. However, some students, like F.M. and M.O., showed little improvement, highlighting potential limitations in the traditional methods for certain learners. Weekly gains were moderate, typically 3-5%, with the most significant improvements occurring between Weeks 3 and 5.

In contrast, the technological vocabulary learning group experienced more rapid and significant improvements. Pre-test scores ranged from 45% to 85%, with post-test results improving to between 60% and 100%. Notable performers, such as J.I., achieved perfect

scores by Week 6, while O.Z. and P.S. saw significant improvements from 65-70% to 90-95%. Overall, the technological group showed faster weekly gains, particularly between Weeks 3 and 5, with many students improving by 10-15% per week.

When comparing both groups, the technological group exhibited faster and more pronounced progress in vocabulary acquisition. While the traditional group saw steady improvement, their progress was generally slower, indicating that digital tools provide a more engaging and flexible learning environment. However, both groups showed improvement, suggesting that both methods can be effective, though the technological tools appeared to better cater to students who required more dynamic learning resources.



To gain deeper insights into the effectiveness of traditional and technological methods for vocabulary acquisition, semi-structured interviews were conducted with five students who actively participated in the study. These interviews provided valuable personal perspectives, reflecting individual experiences, challenges, and preferences for the methods used.

### 1. Student A.A. (Technological Group)

A.A. was one of the students who showed considerable improvement, increasing from 55% on the pre-test to 80% on the post-test. In the interview, A.A. emphasized the convenience of digital tools, particularly the ability to practice vocabulary on a mobile app during free time. She noted that “the flexibility of using apps at home or while commuting made it easy to stay consistent with practice, and the interactive quizzes helped a lot in remembering new words.” However, she also mentioned that occasionally, “technical issues with the app would interrupt study time,” which was a minor drawback. Despite these challenges, A.A. preferred the technological approach over traditional methods, primarily due to the personalized feedback and varied activities.

### 2. Student F.M. (Traditional Group)

F.M., who only showed a slight improvement from 55% to 65%, expressed mixed feelings about the traditional

method. She appreciated the structured classroom setting and the ability to ask the teacher questions directly, saying, “Having the teacher there made it easier to understand difficult words because I could get instant explanations.” However, she found the repetition exercises somewhat monotonous and admitted to struggling with retaining vocabulary after class. F.M. explained, “I would memorize the words during class, but after a few days, I would forget them because we didn’t use them much in real conversations.” This highlights a limitation of the traditional method for F.M., as she felt it lacked real-world application.

### 3. Student J.I. (Technological Group)

J.I., who achieved a perfect score of 100% by the end of the study, shared that digital flashcards and spaced repetition techniques were key to his success. He remarked, “Using apps like Quizlet really helped me because I could review the words frequently and in different formats—like matching games, fill-in-the-blank exercises, and audio recordings.” J.I. also appreciated the instant feedback from the app, which helped him correct mistakes immediately. He did mention, though, that “sometimes I missed the interaction with a real teacher,” but felt that the technological tools were more than sufficient for self-paced learning. His high scores suggest that technological methods are particularly effective for



students who enjoy autonomy and frequent, interactive practice.

#### 4. Student N.J. (Traditional Group)

N.J., who improved from 65% to 80%, valued the traditional approach for the discipline and structure it provided. She said, “I liked the classroom setting because it forced me to focus, and the teacher made sure everyone stayed on track.” N.J. also mentioned that teacher-led discussions helped her better understand the nuances of new vocabulary. However, she acknowledged that the method was not as flexible as she would have liked. “If I missed a class, it was hard to catch up,” she said, noting that more independent practice could have supplemented her learning. Despite these concerns, she appreciated the routine and consistency offered by traditional teaching.

#### 5. Student M.O. (Traditional Group)

M.O. was one of the students who showed no improvement, remaining at 50% throughout the study. During the interview, he revealed that he struggled to keep up with the pace of the traditional lessons. “I felt like the vocabulary exercises were too repetitive, and I wasn’t interested in just memorizing words without using them in real situations,” he said. M.O. admitted that he would have benefited from more interactive activities and possibly technological tools that could engage him outside of class. His experience highlights the need for more dynamic approaches for students

who do not thrive in structured, teacher-led environments.

#### DISCUSSION

The results of this study provide valuable insights into the effectiveness of traditional and technological methods of vocabulary acquisition for intermediate-level English learners. The findings, supported by both quantitative data and personal accounts from interviews, reveal important trends that have practical implications for language teaching, particularly in designing more effective vocabulary learning programs.

#### Traditional Methods: Steady but Gradual Improvement

Students in the traditional vocabulary learning group exhibited steady but moderate progress throughout the six-week period. Their improvement ranged from an average of 15% to 20%, with the most significant gains occurring between Weeks 3 and 5. This indicates that traditional methods—characterized by structured, teacher-led instruction and repetition exercises—are effective in fostering incremental progress. For learners like M.Z., F.I., and K.X., who performed at higher levels, the structured nature of traditional teaching provided a solid foundation for mastering vocabulary.

However, the relatively slower pace of improvement, compared to the technological group, raises questions about the long-term sustainability of traditional methods, especially for students who may not benefit from rigid instruction. The interviews revealed that students such as F.M. and M.O., who showed minimal improvement, struggled with engagement and retention in traditional settings. These students noted that while teacher support was beneficial, the repetitive nature of vocabulary drills did not encourage meaningful learning or real-world application. This highlights one of the limitations of traditional methods: their inability to cater to more dynamic or autonomous learners who need a variety of stimuli to stay engaged.

The implications of these findings suggest that while traditional methods continue to play a significant role in language education, they may need to be supplemented with more interactive elements to meet the needs of all learners. Educators using traditional approaches should consider incorporating activities that allow for more active, real-world vocabulary use, such as role-plays, games, or discussion-based exercises, to engage students who struggle with passive memorization techniques.

### Technological Methods: Faster and More Pronounced Improvement

In contrast, students in the technological vocabulary learning group showed rapid and significant improvements, with weekly gains often ranging from 10% to 15%. By the end of the study, post-test results for this group ranged from 60% to 100%, with standout performers like J.I. achieving perfect scores. The flexibility and interactive nature of digital tools, such as mobile apps and digital flashcards, appear to have played a key role in this success. Students like A.A. and J.I. attributed their improvement to the convenience of being able to study on their own time and the engaging features of the apps, such as spaced repetition, quizzes, and immediate feedback.

However, even with the advantages of technological tools, some challenges were identified. For example, A.A. mentioned occasional technical issues with the apps, and J.I. noted missing the interaction with a teacher for real-time clarification. These insights suggest that while technological tools are highly effective in promoting vocabulary retention and engagement, they are not without limitations. The lack of human interaction can be a drawback for students who need more guidance or who benefit from the personalized feedback that a teacher can provide.

The implications here are clear: technological tools should be integrated into vocabulary learning programs as a complementary resource rather than a standalone solution. For learners who thrive on autonomy and frequent practice, digital tools provide

a dynamic and flexible environment that fosters consistent improvement. However, teachers should be available to offer additional support and address gaps that technology may not fully cover, such as complex explanations or context-specific usage.

### Comparison and the Case for Blended Learning

The comparison between the traditional and technological groups highlights the strengths and limitations of each approach. The technological group outperformed the traditional group in terms of speed and scale of improvement, suggesting that digital tools are more effective in providing immediate, engaging, and flexible learning opportunities. However, the structured environment and teacher support offered by traditional methods remained valuable, particularly for students like N.J., who needed routine and discipline to focus on learning.

Given these findings, the case for a blended learning approach becomes evident. A combination of traditional methods and technological tools could provide a more holistic and effective learning experience, catering to the diverse needs of all students. For example, technological tools can be used for independent practice and reinforcement of vocabulary, while traditional classroom instruction can focus on deeper explanations, discussions, and real-world application. This balance would allow learners to benefit from both the structure and discipline of

traditional methods and the engagement and flexibility of technological tools.

### Addressing Diverse Learning Styles

The results of this study also underline the importance of recognizing and addressing the diverse learning styles present in any classroom. While some students, like J.I. and A.A., excelled with technological tools, others, such as M.O., struggled with the rigid structure of traditional methods. To accommodate these differences, educators should consider offering multiple pathways for vocabulary acquisition. This might involve providing students with a choice of resources—both digital and traditional—or incorporating a variety of teaching techniques within the same lesson to engage different types of learners.

For instance, teachers could use a digital platform like Quizlet or Memrise for homework assignments, while using traditional in-class discussions and flashcard activities for group learning. This multimodal approach ensures that students can engage with vocabulary in ways that suit their learning preferences, whether they are visual, auditory, or kinesthetic learners.

### CONCLUSION

The findings from this study demonstrate the distinct advantages and limitations of both traditional and technological methods for vocabulary acquisition among intermediate-level English learners. The

traditional vocabulary learning group showed steady, yet moderate progress over the six-week period, with students achieving improvements of 15-20% on average. This suggests that traditional, structured approaches such as teacher-led instruction and repetition exercises are effective in fostering gradual vocabulary acquisition. However, for some students, these methods lacked the engagement and real-world application necessary to enhance long-term retention and meaningful use of vocabulary. The structured nature of traditional methods, while beneficial for students seeking routine and direct feedback, may not cater to learners who require more dynamic or personalized approaches.

On the other hand, the technological vocabulary learning group displayed rapid and more pronounced improvements, with weekly gains of 10-15%, and post-test scores reaching as high as 100%. The flexibility and interactivity provided by digital tools like mobile apps and digital flashcards appeared to significantly contribute to students' engagement and retention. These tools allowed learners to practice vocabulary on their own time, often using engaging features such as spaced repetition, quizzes, and immediate feedback. While these methods proved highly effective for learners who thrived in autonomous, technology-driven environments, some students noted occasional technical issues and a lack of real-time teacher interaction.

The comparison between these two groups underscores the unique strengths and weaknesses of each approach. While technological tools provided a faster and more engaging learning experience, traditional methods offered valuable structure, teacher support, and discipline that some students found crucial for their learning. Consequently, this study highlights the potential of a blended learning model, combining the best aspects of both traditional and technological approaches. A balanced approach—using digital tools for independent practice and traditional instruction for deeper exploration and real-world application—could address the diverse needs of learners and optimize vocabulary acquisition.

Furthermore, the findings emphasize the importance of accommodating different learning styles within the classroom. While some students excelled with the flexibility of technological tools, others struggled with the rigid repetition of traditional methods. Offering a variety of learning pathways, including both digital and traditional resources, can help cater to these varying preferences. Educators should therefore aim to create a multimodal learning environment that incorporates multiple strategies to engage students with different preferences, whether they are visual, auditory, or kinesthetic learners.

In conclusion, this study illustrates that both traditional and technological methods have valuable roles to play in vocabulary acquisition. By integrating these

approaches into a cohesive, blended learning model, educators can provide a more comprehensive, effective, and flexible learning experience that accommodates the diverse needs of learners. This blended approach not only fosters better vocabulary retention and engagement but also equips students with the tools and strategies they need to apply their knowledge in real-world contexts, ensuring long-term success in language learning.

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