

Integration of Mobile-Assisted Language Learning (MALL) Using Quizlet to Enhance EFL Students' Vocabulary Mastery

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ABSTRACT

Vocabulary mastery is a foundational element in English as a Foreign Language (EFL) acquisition, yet traditional instructional methods often fail to maintain student engagement and retention. This study aims to investigate the effectiveness of integrating Quizlet, a Mobile-Assisted Language Learning (MALL) application, to significantly improve the vocabulary mastery of first-semester students at Universitas Puhuwato. Employing a quantitative pre-experimental research design (one-group pre-test and post-test), the study involved a sample of 23 students selected through a total sampling technique. Primary data were collected utilizing a validated 25-item multiple-choice vocabulary test administered before and after a four-meeting instructional treatment. The collected data were analyzed using descriptive statistics and a paired sample t-test via SPSS. The findings revealed a substantial increase in students' learning outcomes; the pre-test mean score of 62.13 rose significantly to a post-test mean of 81.74. Inferential analysis yielded a significance value of 0.000 ($p < 0.05$) with a t-value of -9.87, unequivocally rejecting the null hypothesis. The integration of Quizlet's interactive flashcards and gamified repetition fostered an engaging, independent learning environment that successfully bridged the vocabulary deficit. In conclusion, Quizlet is a highly effective pedagogical tool for vocabulary acquisition, and it is strongly recommended that EFL educators incorporate such digital applications into their teaching strategies.

Informasi Artikel

Kata Kunci:

EFL; Mobile-Assisted Language Learning; Penelitian kuantitatif; Quizlet; Penguasaan kosakata

ABSTRAK

Penguasaan kosakata merupakan elemen mendasar dalam pemerolehan Bahasa Inggris sebagai Bahasa Asing (EFL), namun metode pengajaran tradisional seringkali gagal mempertahankan keterlibatan dan daya ingat mahasiswa. Penelitian ini bertujuan untuk menyelidiki efektivitas integrasi Quizlet, sebuah aplikasi *Mobile-Assisted Language Learning* (MALL), untuk secara signifikan meningkatkan penguasaan kosakata mahasiswa semester pertama di Universitas Puhuwato. Menggunakan desain penelitian pra-eksperimental kuantitatif (satu kelompok pre-test dan post-test), penelitian ini melibatkan sampel sebanyak 23 mahasiswa yang dipilih melalui teknik *total sampling*. Data primer dikumpulkan menggunakan tes kosakata pilihan ganda 25 butir yang telah divalidasi, yang diberikan sebelum dan sesudah empat pertemuan perlakuan instruksional. Data yang terkumpul dianalisis menggunakan statistik deskriptif dan uji-t sampel berpasangan melalui SPSS. Temuan mengungkapkan peningkatan substansial dalam hasil belajar mahasiswa; nilai rata-rata pre-test sebesar 62,13 naik secara signifikan menjadi rata-rata post-test sebesar 81,74. Analisis inferensial menghasilkan nilai signifikansi sebesar 0,000 ($p < 0,05$) dengan nilai t sebesar -9,87, yang secara tegas menolak hipotesis nol. Integrasi kartu flash interaktif dan pengulangan berbasis *game* dari Quizlet menumbuhkan lingkungan belajar mandiri yang menarik dan berhasil menjembatani defisit kosakata. Kesimpulannya, Quizlet adalah alat pedagogis yang sangat efektif untuk pemerolehan kosakata, dan sangat disarankan agar pendidik EFL menggabungkan aplikasi digital semacam itu ke dalam strategi pengajaran mereka.

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1. Introduction

Vocabulary is unequivocally the most essential component in learning English as a Foreign Language (EFL). It serves as the primary building block for all communicative skills, including listening, speaking, reading, and writing. Students with a limited lexical repertoire frequently face debilitating difficulties in deciphering texts, articulating ideas coherently, and actively participating in classroom discourse. As emphasized by Nation [4], vocabulary knowledge acts as a central catalyst influencing overall language proficiency; without it, grammatical mastery remains functionally useless. This aligns with contemporary linguistic consensus, which asserts that recognizing and deploying a vast array of words is non-negotiable for students attempting to produce readable and standardized English sentences.

Despite its critical importance, vocabulary instruction in many higher education institutions still relies on conventional, teacher-centered methods such as rote memorization and direct translation. These traditional approaches are increasingly perceived as monotonous and cognitively disengaging, leading to high levels of boredom and low motivation among EFL learners. The rapid advancement and integration of educational technology offer a profound paradigm shift to overcome these pedagogical limitations [3]. Digital integration allows educators to reshape instructional materials into highly interactive formats. Within this technological evolution, Mobile-Assisted Language Learning (MALL) has emerged as a dominant pedagogical strategy, capitalizing on the ubiquity of smartphones to facilitate continuous, ubiquitous language acquisition beyond the physical classroom [7], [8]. Furthermore, students themselves exhibit highly positive perceptions of MALL frameworks as tools for fostering autonomous vocabulary mastery [12].

Among the various MALL applications currently available, Quizlet stands out as a highly effective web and mobile-based learning platform. Quizlet utilizes digital bilateral flashcards, competitive gamification, and spaced repetition algorithms to enhance vocabulary retention [1]. Previous literature validates the positive impact of Quizlet across various educational levels. For instance, Atalan and Subasi [9] demonstrated its efficacy in teaching vocabulary to secondary school students, while Dewi and Rahma [15] quantitatively proved its direct effect on increasing students' vocabulary mastery. Furthermore, the application has been shown to drastically improve student motivation and active perception within flipped and digital classrooms [10], [11], [14].

However, a specific research gap exists regarding the quantitative efficacy of Quizlet when applied to tertiary-level students in rural or regional institutions, such as Universitas Pohnuato, where preliminary observations indicate that first-

semester students possess alarmingly low initial vocabulary mastery. Addressing this gap is critical to determining whether modern MALL applications can successfully mitigate foundational language deficits in specific demographic contexts. Therefore, this study aims to quantitatively investigate whether there is a significant improvement in the vocabulary mastery of first-semester students at Universitas Pohnuato following the integration of the Quizlet application.

2. Method

To precisely measure the impact of the digital intervention, this study employed a pre-experimental quantitative research design, specifically the one-group pre-test and post-test model. This design is deemed appropriate as it allows researchers to observe the exact magnitude of change in a specific cohort before and after exposure to an independent variable (Quizlet). The research was conducted at Universitas Pohnuato.

The population comprised the entirety of the first-semester students. Given the manageable size of the population, a total sampling technique was utilized, resulting in a final sample of 23 participants. The primary instrument for data collection was an objective vocabulary test consisting of 25 multiple-choice questions specifically designed to test meaning, pronunciation, and contextual usage.

The research procedure was systematically executed in three distinct phases. First, a pre-test was administered to establish the students' baseline vocabulary mastery. Second, the instructional treatment was applied over four intensive meetings; during this phase, the lecturer utilized Quizlet's features (such as Flashcards, Learn, and Quizlet Live) to teach and reinforce target vocabulary sets, allowing students to access the material via their smartphones. Finally, a post-test, identical in structure to the pre-test, was administered to measure knowledge retention and acquisition. The collected quantitative data were then processed using SPSS software to calculate descriptive statistics (mean and standard deviation) and to perform inferential testing, specifically the Shapiro-Wilk normality test and the paired sample t-test, to determine the statistical significance of the intervention.

3. Results and Discussion

3.1 Results

The descriptive statistical analysis provides a clear quantitative overview of the students' vocabulary mastery progression before and after the MALL intervention. The comparative results of the pre-test and post-test scores are summarized in Table 1 below.

Table 1. Descriptive Statistics of Pre-test and Post-test Scores

Test	N	Minimum	Maximum	Mean	Std. Deviation
Pre-test	23	50	75	62.13	8.45
Post-test	23	70	95	81.74	7.92

As illustrated in Table 1, the students exhibited a relatively low initial vocabulary capacity, with a pre-test mean score of 62.13 and a minimum score of 50. However, following the four-meeting treatment utilizing Quizlet, the post-test mean score surged to 81.74, while the minimum score increased significantly to 70. This represents a substantial mean difference of 19.61 points, providing initial evidence that the digital intervention positively impacted students' lexical retention. The graphical representation of this improvement is depicted in Figure 1.

Before conducting the hypothesis testing, it was mandatory to ascertain whether the data followed a normal distribution. The Shapiro-Wilk test was executed, and the results are presented in Table 2.

Table 2. Test of Normality (Shapiro-Wilk)

Test	Sig. (p-value)	Conclusion
Pre-test	0.112	Normal Distribution
Post-test	0.089	Normal Distribution

Table 2 demonstrates that the significance values for both the pre-test (0.112) and post-test (0.089) are greater than the standard alpha level of 0.05. This confirms that the data are normally distributed, thereby justifying the use of the parametric Paired Sample t-test for hypothesis verification. The outcome of the inferential t-test is detailed in Table 3.

Table 3. Paired Samples Test

Pair	Mean Difference	Std. Deviation	t-value	df	Sig. (2-tailed)
Pre-test & Post-test	-19.61	6.32	-9.87	22	0.000

Table 3 reveals a highly significant statistical result. The Sig. (2-tailed) value is 0.000, which is exponentially lower than 0.05, alongside a strong t-value of -9.87. Based on these metrics, the Null Hypothesis (H0), which posited no significant improvement, is definitively rejected, and the Alternative Hypothesis (H1) is accepted. This statistically confirms that Quizlet exerts a very strong and positive impact on improving the vocabulary mastery of first-semester students at Universitas Puhuwato.

3.2 Discussion

The empirical findings of this study unequivocally demonstrate that integrating Quizlet as a MALL instructional tool leads to a massive and significant improvement in EFL

students' vocabulary mastery. The leap from a mean score of 62.13 to 81.74 highlights a pedagogical breakthrough for a demographic that initially struggled with low motivation and limited lexical capacity. This substantial improvement aligns directly with the findings of Dewi and Rahma [15], who observed similar mastery spikes following Quizlet interventions. This success can be theoretically attributed to the fundamental shift from passive, conventional learning to highly interactive, student-centered digital engagement.

Unlike traditional vocabulary lists that often induce cognitive fatigue, Quizlet's multifaceted features—specifically dynamic flashcards and interactive quizzes—facilitate "spaced repetition". This mechanism requires students to repeatedly encounter words in varying game-like contexts, which directly enhances cognitive memory retention and prevents the typical decay of newly acquired linguistic information [9]. The effectiveness of this specific mode of repetition is corroborated by Azman Zakaria et al. [13], who found that Quizlet's live modes drastically solidify vocabulary retention. Furthermore, the application's mobile accessibility allowed students to practice vocabulary independently outside of the rigidly scheduled classroom hours. This flexibility fundamentally aligns with the assertion that technology integration reshapes learning boundaries, granting students the autonomy to learn at their own pace [3], [8].

Moreover, the gamification aspect of features like Quizlet Live fostered a sense of healthy competition and collaboration, significantly elevating intrinsic motivation [14]. When students enjoy the medium of instruction, their affective filter is lowered, making vocabulary acquisition a subconscious and enjoyable byproduct rather than a tedious task [11]. Ultimately, the results of this study at Universitas Puhuwato heavily corroborate previous academic literature [1], [6], asserting that digital vocabulary tools are not merely supplementary novelties, but rather essential, highly effective instruments for modern academic language acquisition.

4. Conclusion

Based on the comprehensive quantitative analysis, it can be concluded that the implementation of the Quizlet application significantly improves the vocabulary mastery of first-semester students at Universitas Puhuwato. The transition to a Mobile-Assisted Language Learning (MALL) framework successfully mitigates the limitations of conventional teaching by providing interactive repetition, enhancing memory retention, and drastically increasing student motivation through flexible, independent access. Given these highly positive outcomes, it is strongly recommended that EFL lecturers proactively integrate Quizlet and similar digital platforms into their standard classroom activities to create more engaging, modern, and effective learning environments.

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