Article

JELITA: Journal of English Language Teaching and Literature
Volume 7, Number 1, February 2026, pages 162-176

P-ISSN 2721-1096
E-ISSN 2721-1916

An Experimental Study on Digital Media Integrated Movie Clips for EFL Students' Vocabulary Mastery

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Abstract
This study focuses on whether or not EFL students' vocabulary mastery might be improved by using digital learning tools, specifically the Cake mobile application in conjunction with real-world movie clips. A quasi-experimental methodology was used, drawing on other studies that highlight the potential of mobile assisted language acquisition and audiovisual input for vocabulary development. 64 eleventh-grade students from SMA Teuku Umar Semarang participated in the study. They were split into two groups: an experimental group that received training via the Cake app and movie clips, and a control group that received instruction via traditional techniques. 50-item multiple-choice pre-tests and post-tests were used to gauge vocabulary proficiency. An independent-samples t-test was used after normality and homogeneity testing in the data analysis. The results showed that while both groups improved, there was no significant difference between the experimental and control groups (sig. = 0.217 > 0.05). These findings suggest that better vocabulary increases are not always the result of integrating digital media and movie clips. The results may have been impacted by elements including insufficient contextual scaffolding, limited repeated exposure, and variations in learner preparedness for mobile assisted learning. In terms of pedagogy, the study recommends that in order to optimize their efficacy, digital media should be integrated into thoughtfully crafted educational frameworks that offer clear direction, contextualized practice, and prolonged exposure to target vocabulary.

Key words
Digital Media, EFL Students, Experimental Study, Movie Clips, Vocabulary Mastery

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INTRODUCTION

Due to the fact that it allows learners to understand input and convey meaning across linguistic skills, vocabulary is an essential part of learning a second language. The ability to employ lexical items effectively in context is a crucial component of vocabulary mastery, which is directly linked to total language proficiency (Dang et al., 2017). Studies repeatedly demonstrate that rote memory is less effective than frequent exposure to terminology in relevant circumstances (F. Teng, 2019). However, word lists and decontextualized exercises continue to play a major role in vocabulary education in many Indonesian EFL classrooms, which hinders students' ability to communicate (Sulistyo et al., 2020). In response, a number of recent studies show that by placing language use in authentic communicative contexts, authentic materials, multimedia resources, and learner-centered strategies can improve vocabulary retention and engagement (Nurlia, 2023). These results point to an increasing trend in vocabulary education that is contextualized, relevant, and backed by strategic learning methodologies (Mahendra et al., 2024).

Mobile-assisted language learning (MALL) has established itself as a popular strategy for enhancing vocabulary learning outside of the classroom in tandem with this pedagogical change. Although there is general agreement in the literature that mobile applications promote learner autonomy and flexible access to linguistic input, their efficacy requires on intentional pedagogical integration rather than technology use alone (Viberg & Grönlund, 2013). According to meta-analytic and review research, mobile applications that offer interactive features, feedback, and prospects for self-regulated learning have a beneficial impact on vocabulary acquisition (Okumuş Dağdeler, 2023). In this regard, the Cake app is a prime example of how mobile technology may be combined with real audiovisual input via dialogue and movie clips. Cake use has been linked to improved learner perceptions, greater motivation, and vocabulary improvements in previous studies (Nasution & Salmiah, 2024). However, there is still a dearth of empirical data contrasting such integrated digital training with conventional classroom techniques, especially in controlled EFL settings. Thus, the current study uses a quasi-experimental method to investigate the efficacy of digital media integrated movie clips, particularly through the Cake application, in improving EFL students' vocabulary mastery.

Authentic media such as movies and video clips provide real-world contexts that enrich vocabulary learning, making them a strong complement to mobile applications like Cake. (Gilmore, 2019) highlighted that authentic audiovisual input exposes learners to natural discourse and pragmatic features absent in textbooks, while (Herron et al., 2006) emphasized that video clips stimulate multimodal learning by combining visual and auditory input to improve retention and comprehension. (Karami, 2019) also noted that authentic videos foster incidental vocabulary learning by immersing learners in communicative contexts. More recent studies confirm these benefits: (Perez, 2020) demonstrated that viewing video supports both form and meaning recognition of new words, (M. F. Teng, 2025) showed that captioned videos enhance vocabulary retention,

and a 2024 study on multimedia input conditions revealed that verbal and nonverbal elements together yield stronger vocabulary gains. In Indonesia, video-based multimedia learning has been proven effective for vocabulary mastery among secondary students (SMPN 52 Bengkulu, 2024/2025), while authentic videos with subtitles were also found to strengthen vocabulary learning at a private college in Bandung. Furthermore, (Zulfia & Andini, 2023) reported that TikTok educational videos significantly engaged students and supported vocabulary learning, and students in Malang viewed immersive video media as providing richer contexts for mastering vocabulary. These findings highlight how authentic video-based input, when integrated into mobile-assisted tools such as the Cake application which itself incorporates movie clips and real-life dialogues can provide interactive, engaging, and context-rich vocabulary practice that aligns with learners' needs in Indonesia.

Despite the fact that real media and mobile-assisted language learning (MALL) have been shown to have advantages, their pedagogical integration has not garnered enough attention, especially in controlled educational settings. Previous study repeatedly shows that a lot of mobile applications still prioritize vocabulary acquisition in solitude, which restricts learners' capacity to use lexical knowledge to authentic conversation (Stockwell, 2022). In the absence of adequate contextual reinforcement, vocabulary increases, even when they are recorded, frequently lack durability (Dan et al., 2024). According to recent reviews, there is still a dearth of empirical research at the secondary EFL level that combines mobile applications with real audiovisual input, particularly studies that directly compare such integrated instruction with traditional classroom methods (Smart Learning Environments, 2023; Truong, 2025). Few studies have looked into a combined instructional design that methodically combines app-based practice with real movie clips to assist contextualized vocabulary learning, although the fact that several have looked at mobile apps or authentic media independently. Furthermore, there is a lack of experimental evidence examining Cake's efficacy when combined with real audiovisual input in formal classroom settings because the majority of studies on the subject concentrate on learner impressions or short-term vocabulary enhancements.

In order to help fill this gap, the current study distinguishes between movie clips as real audiovisual materials that offer contextualized language input and digital media as mobile application-based vocabulary practice named Cake. The Noticing Hypothesis, which emphasizes the importance of conscious attention in language acquisition (Schmidt, 1990), and Sociocultural Theory, which stresses learning through contextual and mediated interaction (Vygotsky, 1978), put forward theoretical support for the integration of these two elements. Research indicates that learning vocabulary is more successful when lexical elements are met in meaningful and multimodal settings as opposed to solitary drills (Godwin-Jones, 2018; M. F. Teng & Reynolds, 2024; Webb, 2019). By providing actual data from a quasi-experimental comparison between integrated digital instruction and traditional teaching at the senior high school EFL level, this study builds on these foundations and makes theoretical and practical

contributions. In terms of pedagogy, it tells educators how real media and mobile apps might be designed to encourage long-term vocabulary growth as opposed to quick memorization. By showing how contextualized audiovisual input might mediate language learning within a mobile-assisted framework, it theoretically expands on MALL research. Therefore, this study presents the incorporation of Cake and movie clips as a principled instructional design for meaningful word acquisition rather than just a technology advancement.

LITERATURE REVIEW

Mastering vocabulary is essential to learning a second language due to how it supports learners' capacity to understand input and accurately convey meaning. (Nation, 2013) asserts that vocabulary knowledge includes form, use, and collocation in addition to word meanings. Students who have a little vocabulary frequently struggle to acquire other language abilities like speaking, writing, listening, and reading. (Webb & Nation, 2017) also stressed that regular exposure and context-relevant usage are necessary for effective vocabulary learning. Vocabulary education has often depended on memorization and isolated word lists in EFL environments like Indonesia, which tends to restrict long-term retention and communicative use (Sulistyo & Heriyawati, 2017). Thus, more learner-centered and contextualized strategies are needed to promote long-term vocabulary growth.

By encouraging flexibility and learner autonomy, Mobile-Assisted Language Learning (MALL) is often commended for its potential to expand vocabulary learning beyond classroom limits; nonetheless, empirical research consistently demonstrates that its success is very conditional. While isolated or drill-based use frequently leads to short-term and decontextualized vocabulary gains, studies consistently show that MALL promotes vocabulary acquisition when mobile applications include interactive features, feedback, and opportunities for self-regulated learning (Burston & Giannakou, 2022; Sung et al., 2017). This pattern implies that without instructional structure and contextualized input, learner autonomy is insufficient on its own. Despite this agreement, the majority of MALL research still looks at mobile apps apart from real learning resources, providing little empirical data on integrated instructional designs, especially in official secondary EFL classes. This limitation is best illustrated by research on the Cake application, which frequently relies on short-term interventions or non-comparative designs that offer little insight into instructional effectiveness or learning transfer and instead emphasizes positive perceptions and immediate vocabulary gains. Therefore, compared to traditional training, there is still a noticeable gap in the experimental investigation of whether and how the integration of MALL with actual audiovisual media, such as movie clips, leads to more meaningful and persistent vocabulary mastering. In order to close this gap, the current study presents MALL as a component of a principled instructional design that integrates mobile-assisted practice with real-world contextual input for senior high school EFL learners.

The Cake app, one of several mobile apps for learning English, has drawn notice for its integration of real-world conversations, brief videos, and movie clips. In keeping with earlier research, Cake exposes students to natural language use, which enhances their vocabulary development, listening comprehension, and pronunciation. (Rakhmawati, 2023) observed that students' vocabulary knowledge significantly improved after using the program, (Nasution & Salmiah, 2024) discovered that students thought Cake was entertaining and helpful for learning new vocabulary. In a similar vein, (Kristanti et al., 2024) emphasized how Cake improves pupils' motivation and general language proficiency. These results show that Cake has a lot of promise as a mobile learning tool, yet how well it is incorporated into teaching methods may determine how effective it is.

When it comes to contextualizing vocabulary learning, authentic media especially movies and video clips are crucial. As explained by (Gilmore, 2019), authentic audiovisual materials expose students to cultural backgrounds, pragmatic elements, and natural discourse that are frequently lacking in textbooks. By utilizing both visual and aural channels, video-based training promotes multimodal learning and improves understanding and retention (Mayer, 2024). According to empirical research, watching videos helps students identify new words' forms and meanings and promotes incidental vocabulary acquisition (Montero Perez, 2020; Teng, 2023). Additionally, by focusing learners' attention on lexical forms, captioned videos have been shown to improve vocabulary recall. These results imply that movie clips offer rich linguistic input that facilitates the acquisition of meaningful vocabulary.

Whereas real media and MALL have both been extensively researched, little is known about how they are integrated. In agreement with (Stockwell and Hubbard, 2019), a lot of mobile applications still prioritize isolated vocabulary development, which makes it challenging for students to use recently learned terms in authentic communication. Vocabulary improvements via mobile applications are typically transient in the absence of contextual reinforcement (Dan et al., 2024). In order to encourage deeper and more sustainable learning, recent studies emphasized the necessity of integrating mobile learning technologies with real-world tasks and resources (Shadiev et al., 2020). The Noticing Hypothesis (Schmidt, 1990), which draws attention to conscious awareness of linguistic forms, and Sociocultural Theory (Vygotsky, 1978), which emphasizes learning through social and contextual interaction, provide theoretical support for this integration. Learners are anticipated to gain frequent, meaningful exposure to language in real-life scenarios by integrating the Cake program with legitimate movie clips, which will improve vocabulary mastery.

RESEARCH METHOD

This study looked at the efficacy of integrating digital media and movie clips in improving students' vocabulary acquisition using a quantitative quasi-experimental approach with a pre-test–post-test control group. Since random assignment is impractical in real classroom settings, this method was chosen because it enables

objective evaluation and statistical comparison of educational effects (Amini Farsani, 2021; Mackey & Gass, 2015; Taguchi, 2025). Two whole eleventh-grade classes at SMA Teuku Umar Semarang participated in the study; Class XI-1 was the experimental group and Class XI-2 was the control group. Both groups took a vocabulary pre-test before therapy, and the findings showed similar mean scores, indicating that the two classes' baseline vocabulary proficiency was roughly equal.

Purposive sampling was used to choose the participants because the author's three-month stint as a teaching intern revealed that the two classes had comparable curriculum backgrounds, English skill levels during daily test, and learning environments. This sample strategy is frequently employed in applied linguistics research and is seen to be suitable for quasi-experimental investigations carried out in institutional settings with limited random assignment (Creswell & Creswell, 2018; Paltridge & Phakiti, 2023). There were 64 students in all, and the only difference between the two groups was the educational method used. Both groups adhered to the identical curriculum and evaluation protocols.

A vocabulary test that was given as a pre-test and a post-test made up the research instrument. The 50 multiple-choice questions on the test were intended to gauge how well students were doing with the target vocabulary in accordance with the curriculum and learning goals of the school. The supervising lecturer used expert judgment to verify content validity through inspecting the test items for representativeness, relevance, and clarity. Internal consistency analysis was used to analyze reliability in order to bolster the assessment's credibility. The results showed that the instrument satisfied acceptable reliability levels for vocabulary measurement. These procedures guaranteed that the exam scored students' vocabulary mastery consistently and accurately on both testing sessions.

There were three primary steps in the research process. To determine the students' baseline vocabulary proficiency before the intervention, a pre-test was given to both the experimental and control groups. In addition to ensuring group comparability, this initial test served as a benchmark for assessing learning gains. Second, students in the experimental group were exposed to contextualized vocabulary through interactive practice and audiovisual input using the Cake application, which was combined with real-world movie clips. In comparison, the control group was given traditional vocabulary training that included written practice exercises, word lists, and definitions. To ensure instructional equivalency, the treatment was administered over a three-week period in six educational sessions, each lasting the same amount of time in both groups. In order to assess changes in vocabulary knowledge after the instructional time, a post-test was given to each participant in the final stage.

SPSS version 26 was used for data analysis. Assumption testing, such as homogeneity of variance tests to assure comparable variability between groups and normality tests to assess score distribution, was done prior to inferential statistics to verify the applicability of parametric analysis. After these checks, the post-test scores of the experimental and control groups were compared using an independent-samples t-test

to see if the instructional treatment produced statistically significant differences. impact size measurements were computed in addition to significance values to show the size of the treatment impact and offer a more insightful interpretation than only statistical significance (Sudina & Plonsky, 2024). To determine whether the incorporation of digital media and movie clips had a significant effect on students' vocabulary knowledge, a significance threshold of 0.05 was used.

FINDINGS AND DISCUSSION

The results of this research offer a comprehensive overview of the development of students' vocabulary mastery in both the experimental and control groups. The experimental group was taught using the Cake application integrated with movie clips, providing a digital and multimedia-based learning experience. In contrast, the control group continued with traditional instructional methods without the use of digital tools. At the outset of the study, students in the control group showed slightly stronger vocabulary skills compared to those in the experimental group. This difference suggests that the control class began the research with a more solid foundation in vocabulary, which may have influenced their initial performance.

1. Summary of Pre-test Descriptive Statistics for the Experimental and Control Groups

During the initial phase, both groups were administered a pre-test containing 50 multiple-choice items designed to measure students' vocabulary knowledge. At the conclusion of the intervention, each group completed a post-test with the same format, allowing for a comparison of their progress and the effectiveness of each teaching method. All test results were systematically collected, organized, and analyzed using several statistical procedures through SPSS version 26.0. The experimental group's pre-test scores ranged from 34 to 90, while the control group obtained scores between 30 and 100, showing a wider performance variation. A detailed summary of the descriptive statistics for the pre-test results of both groups is displayed in Table 1, providing further insight into the initial vocabulary levels of the populations.

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Experimental Group Pre-Test (XI-1)	32	56	34	90	65.81	17.140
Control Group Pre-Test (XI-2)	32	70	30	100	70.13	16.978
Valid N (listwise)	32					

Table 1. Pre-test of Descriptive Statistics

2. Summary of Post-test Descriptive Statistics for the Experimental and Control Groups

According to the pre-test results, students in the experimental class had an average vocabulary score of 65.81 with a standard deviation of 17.140, indicating significant variation in their initial vocabulary abilities. In contrast, the control group had higher average score of 70.13 with a standard deviation of 16.978, indicating that the students

had slightly stronger vocabulary foundation going into the study. Both groups took a post-test to gauge their progress following the instructional session. The experimental class obtained post-test scores ranging from 38 to 92, reflecting that some students showed meaningful improvement while others continued to struggle with vocabulary mastery. In contrast, the control class demonstrated a more substantial overall improvement, with scores ranging from 54 to 100, including several students who reached perfect performance. These results indicate that the conventional teaching method used in the control group yielded stronger gains compared to the digital media–based approach implemented in the experimental group. Further detailed information is presented in Table 2.

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Experimental Group Post-Test (XI-1)	32	54	38	92	75.63	15.825
Control Group Post-Test (XI-2)	32	46	54	100	80.19	12.259
Valid N (listwise)	32					

Table 2. Post-test of Descriptive Statistics

The research findings reveal notable differences in vocabulary mastery between the experimental class and the control class throughout the study. The experimental class received a specialized treatment in which vocabulary learning was facilitated through digital media, specifically the Cake application integrated with movie clips. This combination was intended to provide students with contextualized vocabulary exposure, allowing them to learn new words through real-life dialogues, visual cues, and interactive activities. Meanwhile, the control class continued to use conventional instructional methods typically employed in classroom settings, such as studying word lists, reading passages, and completing written vocabulary exercises. At the beginning of the research, the experimental class demonstrated a lower average vocabulary score of 65.81, compared to the control class, which achieved a higher initial average score of 70.13. This initial gap reflects that the experimental group started with weaker vocabulary skills, which could influence the overall comparison of progress between the two groups. Nevertheless, the study aimed to determine whether the digital learning approach could help the experimental group catch up or even surpass the traditionally taught control group.

After the intervention using the Cake application, the experimental class showed noticeable improvement in vocabulary mastery. Their post-test scores ranged from 38 to 92, indicating that some students benefited significantly from the digital media, while others showed more modest progress. In contrast, the control class also demonstrated substantial improvement, with post-test scores ranging from 54 to 100. This consistent upward trend suggests that conventional teaching methods remained effective in improving students' vocabulary mastery. When comparing the progress of both groups,

however, the results show that the improvement in the experimental class was not as strong as expected. Although the use of digital media provided an engaging and interactive form of learning, the control class despite not using the Cake application or movie clips displayed a greater and more significant increase in vocabulary scores. This outcome indicates that the digital media utilized in the experimental group was not as effective as anticipated. It suggests that while technology-based tools can support learning, they may not always outperform structured traditional methods, especially when the digital tools are not fully aligned with pedagogical needs or when students require more guidance to use the technology effectively.

These findings do not support the idea that digital media, such as the Cake application, can significantly enhance students' vocabulary mastery. The results indicate that digital tools may not always offer learning experiences that are more effective or engaging than conventional methods. In fact, conventional approaches can sometimes produce better outcomes. This is supported by (Yüksel et al., 2022), who found that although digital flashcards can aid vocabulary learning, traditional wordlists still remain effective and can outperform digital tools in certain contexts. Therefore, the digital media integrated with movie clips in language learning may not automatically address learning gaps or ensure students' success.

3. Pre-test Normality Assessment for the Experimental and Control Groups

The post-test results for vocabulary mastery in the experimental group showed an average score of 75.63 with a standard deviation of 15.825. In comparison, the control group achieved a higher mean score of 80.19 with a standard deviation of 12.259. Before conducting further analysis, the data were examined statistically using SPSS 26.0, beginning with a normality test to determine whether the distribution met the assumption of normality. Since the data fulfilled this requirement, a homogeneity test could then be administered. The Shapiro–Wilk results for the experimental group indicated a significance level of 0.073, and the control group obtained a significance level of 0.149, both of which exceeded 0.05. Consequently, H0 was retained, confirming that the data in both groups were normally distributed. Further information can be seen in Table 3.

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Experimental Group Pre-Test (XI-1)	.140	32	.113	.940	32	.073
Control Group Pre-Test (XI-2)	.147	32	.075	.950	32	.149

a. Lilliefors Significance Correction

Table 3. Pre-test of Normality Assessment

4. Post-test Normality Assessment for the Experimental and Control Groups

The results of the normality test show that the experimental group's post-test vocabulary scores have a Shapiro-Wilk significance value of 0.073, which is greater than 0.05. Likewise, the control group's post-test yields a Shapiro-Wilk significance value of 0.149, also exceeding 0.05. Therefore, H0 is accepted, meaning that the data from both groups follow a normal distribution. Table 4 presents further information about normality test of post-test.

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Experimental Group Post-Test (XI-1)	.126	32	.200*	.940	32	.076
Control Group Post-Test (XI-2)	.088	32	.200*	.966	32	.394

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Table 4. Post-test of Normality Assessment

5. Post-test Homogeneity Evaluation for the Experimental and Control Groups

The normality test results indicate that all datasets are normally distributed. The subsequent homogeneity test aims to determine whether the variances of the experimental and control groups are uniform. The homogeneity test for vocabulary ability in the experimental group produced a significance value of 0.250, which is higher than 0.05, showing that the variances of both groups are homogeneous. Table 5 provides more details.

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Score of Post-Test	Based on Mean	1.430	11	16	.250
	Based on Median	.609	11	16	.795
	Based on Median and with adjusted df	.609	11	5.766	.774
	Based on trimmed mean	1.244	11	16	.336

Table 5. Post-test of Homogeneity Evaluation

After verifying that the data satisfied the assumptions of homogeneity and normality, two crucial preconditions for guaranteeing the precision and dependability of parametric stastical testing, the t-test in this investigation was carried out. The t-test was used to assess if using digital media more especially, the Cake application combined with movie clips had a substantial impact on students' vocabulary skills in comparison to more conventional teaching techniques. The hypotheses were developed in this

situation to direct how the findings were interpreted. The null hypothesis (h0: μ1 = μ2) asserts that the experimental and control groups' mean vocabulary scores are identical, suggesting that the Cake program has no appreciable effect on pupils' vocabulary proficiency. On the other hand, the alternative hypothesis (H1: μ1 ≠ μ2) implies that there is a quantifiable difference between the two groups, indicating that students' vocabulary performance is impacted by using the Cake program. By applying the T-test, the study aimed to provide statistical evidence that supports or rejects these hypotheses, thereby determining whether the digital learning intervention contributed meaningfully to vocabulary development.

6. Post-test Hypothesis Testing Outcomes for the Experimental and Control Groups

The Independent Samples T-test shows that there is no significant difference between the post-test scores of the experimental and control groups (Sig. = 0.217 > 0.05). Although the experimental group's mean score is slightly lower, this difference is not statistically meaningful. The confidence interval also crosses zero, confirming that the treatment of Cake application did not produce a significant improvement compared to the conventional method. Further detailed information is presented in Table 6.

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Post Test Experiment	Equal variances assumed	3.470	.067	-1.246	62	.217	-4.56250	3.66120	-11.88114	2.75614
	Equal variances not assumed			-1.246	56.904	.218	-4.56250	3.66120	-11.89420	2.76920

Table 6. Post-test of Hypothesis Testing Outcomes

The study found that using the Cake application combined with movie clips did not lead to a significant improvement in students' vocabulary mastery. The results in these findings show that the experimental group obtained an average vocabulary score of 75.63, categorized as fair, while the control group reached an average of 80.19, considered very good. Many students struggled with constructing coherent sentences, selecting accurate translations, and dealing with limited vocabulary knowledge. The test outcomes also revealed that students faced challenges with multiple-choice items, particularly during the pre-test. Further information is presented in Figure 1.

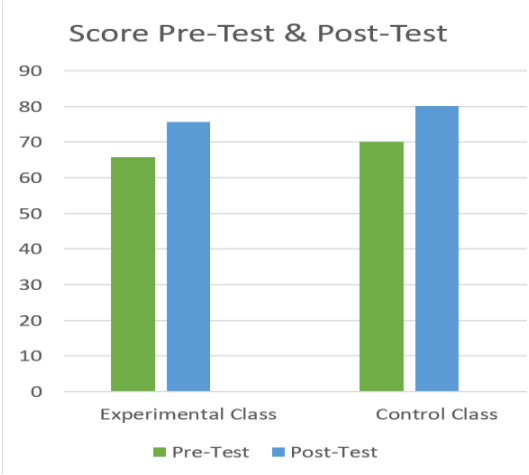

Figure 1: Score Pre-Test and Post Test of 2 Classes

From these findings, we can find out whether digital media such as the Cake application and movie clips integration can improve students' vocabulary skills. Integrating mobile applications with authentic material is in line with the current perspective in Communicative Language Teaching, which emphasizes meaningful interaction and the use of real-life language (Larsen-Freeman & Anderson, 2013). (Dörnyei & Ushioda, 2021) also emphasize that learners' motivation increases when instruction is engaging and relevant to students' lives, as can be achieved through movie clips. Additionally, (Mayer, 2024) reaffirms that a multimedia-based approach combining verbal and visual channels enhances deeper understanding and retention. This theoretical foundation validates the significance of digital media as strategies for improving vocabulary learning. The experimental and control classes' pre-test and post-test results are compared in Figure 1. Scored on the y-axis range from 0 to 90. The two classes the Experimental Class and the Control Class are shown on the x-axis. There are two bars for every class: a blue bar for post-test results and a green bar for pre-test results. The average pre-test score for the experimental class was 66, while the average post-test score was 76. The average pre-test and post-test scores for the control group were 70 and 80, respectively.

The results of this study demonstrate the utilization of movie clips in conjunction with the Cake application did not significantly improve vocabulary more than traditional educational methods. This result corroborates earlier studies showing that mobile-assisted language learning is only successful when integrated into well-thought-out pedagogical design and organized instructional support (Kukulska-Hulme, 2020). The similar performance of the experimental and control groups may be explained by the instructional integration's failure to adequately encourage deep processing or contextualized vocabulary use, regardless of the use of digital media.

Theoretically, in order to promote long-lasting learning, vocabulary acquisition necessitates regular and significant exposure in a variety of contexts (Nation, 2013; Webb & Nation, 2017). The success of authentic movie clips depends on pedagogical mediation such as guided noticing, word recycling, and opportunities for productive

usage (Webb, 2020), even if they provide multimodal input that can improve noticing and retention (Gilmore, 2019; Paivio, 2014). According to the current research, digital tools and audiovisual materials might only result in temporary or superficial vocabulary improvements in the absence of such support.

In terms of pedagogy, this study emphasizes that real media and digital apps should serve as parts of a well-thought-out instructional design rather than as stand-alone add-ons. To optimize vocabulary acquisition outcomes, teachers are urged to combine mobile-assisted practice with contextual reinforcement, regular exposure, and clear supervision. The study theoretically advances MALL research by supporting the idea that contextualized, teacher-mediated education in EFL contexts is the only way that technology might enhance vocabulary learning.

CONCLUSION

This study investigated the possibility of enhancing students' vocabulary knowledge beyond traditional training by incorporating digital media, particularly the Cake program in combination with real-world movie clips. The findings suggested that the digital intervention did not outperform conventional teaching techniques since, while students in the experimental group did demonstrate progress, their gains were not substantially higher than those of the control group.

These results highlight the fact that pedagogical design, not technology by itself, is a key factor in the efficacy of digital media for vocabulary development. Without organized activities, contextual scaffolding, frequent opportunities for meaningful use, and active teacher guiding, mobile applications and multimedia resources can boost learner engagement but do not necessarily result in deeper vocabulary acquisition. It is possible that the study's use of digital technologies did not offer enough instructional support to encourage long-term vocabulary growth. However, the study has significant pedagogical implications, suggesting that movie clips and digital media are best used as complementary tools within carefully thought-out instructional frameworks. In order to further understand how contextual assistance and learner variations affect the efficacy of mobile-assisted vocabulary learning, future research could prolong the duration of interventions, investigate alternative instructional designs, or integrate qualitative approaches.

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