

The Use of the Fun English Learning (FEL) Application in Enhancing Students' English Vocabulary

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ABSTRACT

This study examined the effectiveness of the Fun English Learning (FEL) application in enhancing the English vocabulary mastery of eighth-grade students at UPT SMP Negeri 1 Pangsid, Sidenreng Rappang. A quantitative quasi-experimental method with a pre-test-post-test control group design was employed. The participants consisted of 31 students: 16 students in the experimental group who learned vocabulary through the FEL application and 15 students in the control group who received conventional instruction. A 20-item multiple-choice vocabulary test was administered before and after the treatment. The data were analyzed using descriptive statistics, the Shapiro-Wilk test, Levene's test, and an Independent Samples t-test with SPSS version 26. The experimental group's mean score increased from 63.13 on the pre-test to 77.19 on the post-test, whereas the control group's mean score changed only from 58.00 to 58.67. The post-test comparison yielded $t(29) = 5.007$, $p < 0.001$, with a mean difference of 18.52 points. The findings demonstrate that students taught through FEL achieved significantly higher vocabulary outcomes than students taught through conventional instruction. The application's interactive games, quizzes, pronunciation practice, listening activities, multimedia support, and immediate feedback provided repeated and engaging opportunities to process vocabulary. Therefore, FEL can be considered an effective technology-assisted medium for supporting vocabulary instruction among junior high school students.

Keywords: Fun English Learning (FEL); English Vocabulary Mastery; Gamified Learning; Mobile-Assisted Language Learning

INTRODUCTION

Vocabulary is a central component of English language proficiency because learners depend on words to interpret messages and express ideas in listening, speaking, reading, and writing. Vocabulary mastery is not limited to remembering isolated meanings; it also involves knowing word forms, grammatical behavior, contextual use, and relationships with other words. Nation (2001, 2013) emphasizes that vocabulary knowledge develops through repeated encounters and meaningful use, while Graves (2006) notes that broader lexical knowledge supports comprehension and more accurate expression. For junior high school learners, systematic vocabulary development is therefore necessary because limited lexical resources can restrict both receptive and productive language performance.

Despite its importance, vocabulary learning is frequently experienced as difficult and monotonous when classroom activities rely mainly on memorizing word lists, teacher explanation, and written exercises. Such routines may expose students to target words, but they can provide limited opportunities for active exploration, repeated retrieval, contextual practice, and immediate feedback. The thesis underlying this article identifies this problem in the context of eighth-grade learners at UPT SMP Negeri 1 Pangsid, where an instructional alternative was needed to make vocabulary practice more engaging and compatible with students' familiarity with digital technology.

The rapid expansion of educational technology has created opportunities to integrate mobile-assisted language learning into English instruction. Kukulska-Hulme (2011) explains that mobile learning can extend language practice by allowing learners to interact with learning materials through portable digital devices. In vocabulary learning, this flexibility can be combined with gamification, multimedia, and immediate feedback. Kapp (2012) describes gamification as the use of game elements to increase engagement and persistence, while Gee (2003) argues that game-based environments can support meaningful learning by presenting challenges, feedback, and active problem solving.

The Fun English Learning (FEL) application represents this type of technology-assisted learning medium. In the present study, FEL was used to support vocabulary learning through interactive games, quizzes, listening tasks, matching activities, pronunciation practice, and repeated exposure to target words. The application also incorporated game-oriented elements that were expected to increase attention and participation. Instead of functioning only as a digital substitute for a textbook, FEL provided students with opportunities to respond to vocabulary items, receive feedback, repeat tasks, and engage with audio-visual materials during the learning process.

Previous research cited in the thesis provides support for technology-assisted and gamified vocabulary learning. Chen et al. (2022) reported that gamified mobile applications can improve vocabulary learning by strengthening motivation and

retention. Liu and Chen (2021) found that adaptive mobile-assisted vocabulary activities supported learners' vocabulary performance through interactive and personalized practice. Zheng et al. (2023) emphasized the contribution of gamification to intrinsic motivation and vocabulary retention, whereas Wang and Liu (2021) found stronger vocabulary outcomes in technology-assisted learning than in conventional instruction. Indonesian studies cited in the thesis likewise indicate that gamified digital applications can enhance vocabulary development and learning participation (Fitriani et al., 2023; Hasbi et al., 2024; Prastiwi & Lestari, 2025).

Although these studies generally support digital and gamified language learning, instructional effectiveness remains dependent on learners, school context, treatment design, and the way the application is integrated into classroom activities. Evidence from a specific junior high school context is therefore important. This study focused on eighth-grade students at UPT SMP Negeri 1 Pangsidi and compared students who learned with FEL with students who received conventional vocabulary instruction. The study addressed whether the FEL application produced a significant difference in students' English vocabulary mastery and whether its use could serve as an effective alternative instructional medium in the local EFL context.

LITERATURE REVIEW

Vocabulary Mastery

Vocabulary refers to the lexical knowledge learners need to recognize, understand, and use words appropriately. Nation (2001) views word knowledge as multidimensional, involving form, meaning, and use. This means that successful vocabulary learning requires more than translation or memorization: learners need repeated opportunities to identify word forms, connect them with meanings, and use them in meaningful contexts. Nation (2013) further distinguishes receptive and productive vocabulary knowledge, highlighting the gradual movement from recognizing a word toward using it independently. For junior high school learners, vocabulary supports the development of all major language skills. When students possess sufficient lexical knowledge, they are better able to understand classroom input and written texts, participate in spoken interaction, and construct meaningful sentences. The present research operationalized vocabulary mastery through a 20-item test covering nouns, adjectives, verbs, synonyms, antonyms, word meanings, and vocabulary used in simple contexts. The pre-test and post-test therefore measured students' vocabulary achievement before and after the instructional interventions.

Fun English Learning and Gamified Mobile Learning

FEL is treated in this study as a mobile digital learning application that combines vocabulary practice with interactive and game-oriented activities. The learning environment included vocabulary games, quizzes, pronunciation practice, listening

exercises, matching tasks, and multimedia support. These features are consistent with Mobile-Assisted Language Learning because students interact with language materials through mobile technology and can receive repeated exposure to vocabulary in a more flexible format (Kukulska-Hulme, 2011). Gamification provides an additional pedagogical rationale for the application. Game elements such as challenges, rewards, levels, and immediate response can sustain attention and encourage learners to complete repeated practice. Kapp (2012) explains that game-based design can support motivation and engagement, while Prensky (2001) associates digital game-based learning with the preferences of learners accustomed to interactive technology. From a constructivist perspective, students are expected to develop knowledge more effectively when they participate actively, interact with materials, and construct meaning from experience (Vygotsky, 1978). FEL's interactive activities are therefore relevant because they require students to respond to vocabulary rather than receive information passively. Empirical work summarized in the thesis consistently points to the importance of interactivity, personalization, repetition, and feedback. Chen et al. (2022) associated gamified mobile vocabulary learning with improved motivation and retention. Liu and Chen (2021) highlighted adaptive mobile learning, Zheng et al. (2023) emphasized gamification and retention, and Wang and Liu (2021) reported advantages of multimedia and immediate feedback over conventional instruction. These findings provided the conceptual and empirical basis for testing FEL with eighth-grade Indonesian EFL learners.

METHOD

Design and Sample

The study employed a quantitative quasi-experimental design using a pre-test-post-test control group structure. Both groups completed a pre-test before treatment and a post-test after treatment. The experimental group received vocabulary instruction through the Fun English Learning (FEL) application, whereas the control group received conventional vocabulary instruction. This design enabled the researcher to compare initial performance, observe change after instruction, and test whether the post-test scores of the two independent groups differed significantly. The study was conducted at UPT SMP Negeri 1 Pangsid during the 2025/2026 academic year. The participants consisted of 31 eighth-grade students from Class VIII.2. Sixteen students formed the experimental group and 15 students formed the control group. The thesis describes the participants as having relatively similar educational backgrounds and studying under the same curriculum. They were selected because they were at an appropriate stage of developing English vocabulary and suitable for implementation of the FEL application. The study used the existing class context within a quasi-experimental framework rather than random assignment of a large population.

Instruments and Procedures

The primary instrument was a vocabulary achievement test consisting of 20 multiple-choice items. Each correct answer received one raw point and each incorrect answer received zero; raw scores were then converted to a 100-point scale. The items assessed vocabulary components including nouns, adjectives, verbs, synonyms, antonyms, word meanings, and vocabulary in simple contexts. The same scoring procedure was used for the pre-test and post-test to maintain comparability. Data collection involved three principal stages. First, both groups completed the pre-test to establish baseline vocabulary performance. Second, the experimental group participated in FEL-based vocabulary learning through educational games, listening exercises, matching activities, pronunciation practice, quizzes, and other interactive tasks, while the control group received conventional vocabulary instruction. Third, both groups completed a post-test with a format and difficulty level comparable to the pre-test. Documentation of school conditions, class grouping, schedules, and learning activities was used as supporting evidence during the research process.

Data Analysis

The data were analyzed using SPSS version 26. Descriptive statistics were calculated for the experimental and control groups, including N, minimum, maximum, mean, and standard deviation. Before hypothesis testing, Shapiro-Wilk tests were used to examine normality because each group contained fewer than 50 students. Levene's Test for Equality of Variances was then used to assess homogeneity. After the assumptions were met, an Independent Samples t-test compared the post-test mean scores of the experimental and control groups at a significance level of 0.05. A p-value below 0.05 was interpreted as evidence of a statistically significant difference between the groups.

RESULT AND DISCUSSION

Descriptive Results

The descriptive results show a clear difference in the development of vocabulary scores between the two groups. The experimental group began with a pre-test mean of 63.13 and increased to 77.19 after learning through FEL. Its minimum score increased from 35 to 60 and its maximum score increased from 85 to 90. The standard deviation also decreased from 12.23 to 8.16, indicating that post-test scores became more concentrated around the higher mean. In contrast, the control group's mean changed only slightly from 58.00 to 58.67, while the maximum score remained 75 and the post-test standard deviation increased to 12.77. These patterns indicate substantially greater improvement in the experimental group.

Table 1. Descriptive statistics of vocabulary scores

Group	Variable	N	Minimum	Maximum	Mean	SD
Experimental	Pre-test	16	35.00	85.00	63.13	12.23
Experimental	Post-test	16	60.00	90.00	77.19	8.16
Control	Pre-test	15	35.00	75.00	58.00	11.77
Control	Post-test	15	35.00	75.00	58.67	12.77

Normality and Homogeneity Tests

The Shapiro-Wilk results showed that all pre-test and post-test distributions had significance values above 0.05. The experimental group's significance values were 0.522 for the pre-test and 0.202 for the post-test, while the control group's values were 0.380 and 0.183. The data were therefore considered normally distributed. Levene's test for the post-test produced $F = 3.760$ and $p = 0.062$. Because 0.062 was greater than 0.05, the variances of the two groups were considered homogeneous, supporting the use of the equal-variances-assumed result in the Independent Samples t-test.

Table 2. Shapiro-Wilk normality test

Group	Variable	Statistic	df	Sig.
Experimental	Pre-test	0.952	16	0.522
Experimental	Post-test	0.925	16	0.202
Control	Pre-test	0.940	15	0.380
Control	Post-test	0.919	15	0.183

Table 3. Levene's homogeneity test

Variable	F	Sig.
Post-test	3.760	0.062

Hypothesis Testing

The Independent Samples t-test demonstrated a statistically significant post-test difference between the experimental and control groups. Under equal variances assumed, the analysis produced $t = 5.007$ with 29 degrees of freedom and $p < 0.001$. Because the probability value was below 0.05, the null hypothesis was rejected and the alternative hypothesis was accepted. The mean post-test difference was 18.52 points (77.19 minus 58.67), showing that students who learned vocabulary through FEL achieved markedly higher final scores than those who received conventional instruction.

Table 4. Independent Samples t-test result

Comparison	Mean Experimental	Mean Control	Mean Difference	t	df	Sig. (2-tailed)
Post-test	77.19	58.67	18.52	5.007	29	< 0.001

The findings indicate that the Fun English Learning application was effective in enhancing students' English vocabulary mastery in the research context. The experimental group improved by 14.06 mean points from pre-test to post-test, while the control group improved by only 0.67 points. More importantly, the post-test difference between the two groups was statistically significant. This combination of descriptive improvement and inferential evidence suggests that the observed advantage was associated with the FEL-based instructional experience rather than simply with routine classroom progression during the study period. One explanation for the improvement is the level of active engagement created by the application's interactive activities. Students in the experimental group encountered vocabulary through games, quizzes, matching activities, listening exercises, pronunciation practice, and multimedia-supported tasks. These activities required learners to identify meanings, choose answers, listen to forms, pronounce words, and respond repeatedly. Such repeated processing is consistent with Nation's (2001) view that vocabulary knowledge strengthens through multiple meaningful encounters. Rather than receiving vocabulary only through teacher explanation, students interacted with target words in several task formats.

Immediate feedback may also have contributed to the experimental group's performance. In conventional instruction, feedback can depend on when the teacher reviews an answer or written task. In an interactive digital application, learners can often recognize correct and incorrect responses more quickly and repeat the task when necessary. The thesis discussion interprets this feature as useful for correcting errors, reinforcing correct vocabulary use, and increasing learner confidence. This interpretation aligns with the broader logic of game-based learning described by Gee (2003), in which feedback and challenge encourage continued participation and adjustment. The gamified structure of FEL may have supported motivation and sustained attention. Kapp (2012) argues that game elements can encourage engagement by providing goals, challenge, and a sense of progress. In this study, the combination of visual materials, audio, quizzes, and game-oriented tasks created a more varied learning environment than textbook- and explanation-dominated instruction. The reduction in the experimental group's standard deviation from 12.23 to 8.16 is also noteworthy because the improved mean was accompanied by more consistent post-test performance. This pattern suggests that the application was not beneficial only to the highest-scoring students; the class as a whole moved toward a higher and less dispersed level of achievement.

The results are consistent with the technology-assisted vocabulary studies cited in the thesis. Chen et al. (2022) reported positive effects of gamified mobile applications on vocabulary retention and motivation. Liu and Chen (2021) showed that adaptive mobile-assisted learning can support vocabulary performance, while Zheng et al. (2023) associated gamification with stronger intrinsic motivation and retention. Wang and Liu (2021) similarly emphasized multimedia features and real-time feedback as advantages over conventional vocabulary teaching. In the Indonesian context, Fitriani et al. (2023), Hasbi et al. (2024), and Prastiwi and Lestari (2025) also support the use of gamified digital applications for vocabulary development. The present study adds contextual evidence from eighth-grade students at UPT SMP Negeri 1 Pangsid. The findings can further be interpreted through a constructivist view of learning. Vygotsky (1978) emphasizes learning as an active process mediated by interaction and meaningful activity. During FEL instruction, students did not simply receive finished definitions; they explored vocabulary through tasks, responded to prompts, linked audio-visual information with word meaning, and received feedback. This form of participation provided opportunities for learners to construct and reinforce vocabulary knowledge through experience. The application therefore functioned as a structured learning environment in which technology supported active processing rather than replacing the pedagogical role of instruction.

Nevertheless, the findings should be interpreted within the boundaries of the research design. The sample involved only 31 students from one class context, divided into 16 experimental and 15 control participants. The study focused on vocabulary achievement measured through a 20-item multiple-choice test and compared post-test outcomes after a limited instructional period. The results therefore provide evidence for this specific school setting but should not automatically be generalized to all grade levels, schools, language skills, or long-term learning outcomes. Future studies can involve larger samples, longer interventions, multiple schools, delayed retention tests, and comparisons with other mobile-assisted language learning applications.

CONCLUSION

This study concludes that the Fun English Learning (FEL) application was effective in enhancing the English vocabulary mastery of eighth-grade students at UPT SMP Negeri 1 Pangsid. Students in the experimental group increased their mean score from 63.13 to 77.19, whereas the control group's mean changed from 58.00 to 58.67. The post-test comparison produced $t(29) = 5.007$ with $p < 0.001$, confirming a statistically significant difference between the groups and a mean advantage of 18.52 points for students who learned through FEL. The improvement was supported by an instructional environment that combined interactive vocabulary games, quizzes, listening activities, pronunciation practice, multimedia, repeated exposure, and immediate feedback. These features encouraged active participation and provided students with varied opportunities to process and reinforce target vocabulary. English teachers may therefore consider FEL as an alternative digital

medium for vocabulary instruction when adequate devices, classroom management, and instructional guidance are available. Future research should examine longer-term retention, broader samples, and the application's potential contribution to speaking, listening, reading, and writing.

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