

THE EFFECTIVENESS OF USING @JAYFUJIWARA TIKTOK ACCOUNT TO IMPROVE STUDENTS' VOCABULARY MASTERY

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Abstract

The integration of digital learning media has created opportunities to enhance English vocabulary mastery through engaging and accessible platforms. This study aimed to examine the effectiveness of the @jayfujiwara TikTok account in improving the vocabulary mastery of eleventh-grade students at SMK Negeri 1 Dukuhturi. The study employed a quantitative approach using an experimental pre-test–post-test design involving 72 students divided into an experimental group and a control group through cluster random sampling. Data were collected using vocabulary pre-tests and post-tests consisting of 35 multiple-choice and 5 short-answer items, then analyzed using descriptive statistics, the Shapiro–Wilk normality test, Levene's homogeneity test, paired-samples t-test, and independent-samples t-test. The findings revealed that the experimental group demonstrated significantly greater improvement in vocabulary mastery than the control group, with the independent-samples t-test showing a significance value of 0.000 ($p < 0.05$). These results indicate that the use of the @jayfujiwara TikTok account effectively enhances students' vocabulary mastery. The study concludes that integrating short educational videos based on a microlearning approach can serve as an effective digital learning strategy to improve vocabulary acquisition while increasing students' engagement and motivation in English language learning.

Keywords: TikTok, vocabulary mastery, microlearning, digital learning, experimental study.

1 INTRODUCTION

The rapid development of digital technology has transformed the way students learn, particularly in English language education. Digital learning media provide broader access to learning resources while creating more engaging and interactive learning experiences. In English learning, vocabulary mastery is a fundamental component because it supports students' ability to understand and use the language in listening, speaking, reading, and writing. However, many vocational high school students still experience limited vocabulary mastery due to conventional teaching methods that are less engaging and provide insufficient opportunities for repetition and contextual practice.

In vocational high schools, vocabulary mastery plays an essential role in preparing students for academic success and future professional careers. Students are expected to understand and use English vocabulary related to communication, workplace interactions, and technical terminology in their respective fields. Nevertheless, many students encounter difficulties in acquiring and retaining new vocabulary, which may limit their ability to comprehend learning materials and communicate effectively in English. Therefore, developing innovative instructional strategies to improve vocabulary mastery has become an important concern in English language teaching.

One potential solution is the integration of digital media that aligns with students' learning habits. Microlearning, which delivers learning materials in short, focused, and repeatable units, has been recognized as an effective approach for vocabulary acquisition because it facilitates retention and repeated exposure to new words (Monib et al., 2025). Among various digital platforms, TikTok has gained considerable attention as an educational medium because its short-video format combines visual and auditory elements that can enhance students' engagement and vocabulary learning.

The increasing popularity of social media among adolescents provides opportunities for educators to incorporate familiar digital platforms into classroom instruction. Rather than serving only as a source of entertainment, social media applications can function as effective learning media that encourage independent learning beyond classroom hours. TikTok enables students to access learning materials repeatedly and flexibly, allowing them to review vocabulary whenever necessary. Such repeated

exposure is expected to strengthen vocabulary retention while creating a more enjoyable and motivating learning experience.

The educational TikTok account @jayfujiwara presents English vocabulary through concise videos containing word meanings, pronunciation, and contextual examples. Its content is structured according to microlearning principles, enabling students to review vocabulary repeatedly in an enjoyable way. Considering that vocational high school students are expected to possess adequate English vocabulary to meet future academic and workplace demands, the use of this platform has the potential to improve vocabulary mastery while increasing students' motivation to learn.

Unlike many general educational videos, the @jayfujiwara TikTok account provides structured vocabulary instruction through consistent learning materials that combine pronunciation practice, vocabulary meaning, contextual sentence examples, and visual explanations in short learning sessions. These characteristics enable students to receive concise yet meaningful learning experiences while minimizing cognitive overload. Consequently, this instructional approach may facilitate vocabulary acquisition more effectively than conventional learning methods that rely primarily on textbooks and teacher explanations.

Previous studies have reported that TikTok contributes positively to vocabulary learning (Tampubolon et al., 2024); (Nabila et al., 2023). Similar findings have also been reported for other digital learning media, such as YouTube and the Cake application, which improve students' vocabulary achievement through audiovisual learning (Reica et al., 2024). Nevertheless, most previous studies either employed less rigorous research designs, focused on TikTok as a general platform, or did not examine a specific educational account with structured instructional content. Consequently, empirical evidence regarding the effectiveness of the @jayfujiwara TikTok account in vocational high school settings remains limited.

Furthermore, although previous studies have demonstrated the educational potential of TikTok, relatively few have investigated the effectiveness of specific educational content creators that consistently implement microlearning principles. Examining a particular educational account provides a more focused understanding of how content quality and instructional design influence students' learning outcomes. Therefore, this study seeks to address this research gap by evaluating the effectiveness of the @jayfujiwara TikTok account as a digital learning medium for vocabulary instruction in a vocational high school context.

Based on this gap, this study addresses the following research questions: (1) Is the use of the @jayfujiwara TikTok account effective in improving the vocabulary mastery of eleventh-grade students at SMK Negeri 1 Dukuhturi? and (2) Is there a significant difference in vocabulary mastery between students who learn through the @jayfujiwara TikTok account and those who receive conventional instruction? Accordingly, this study aims to determine the effectiveness of the @jayfujiwara TikTok account in improving students' vocabulary mastery and to examine the difference in learning outcomes between the experimental and control groups.

This study contributes to English language education by providing empirical evidence on the effectiveness of a specific educational TikTok account as a microlearning-based instructional medium. The findings are expected to enrich the literature on technology-assisted vocabulary learning, particularly in vocational education, while offering practical implications for English teachers who seek to integrate innovative digital media into vocabulary instruction. Moreover, the study is expected to encourage educators to utilize social media platforms more effectively as complementary learning resources that align with students' digital learning characteristics in the modern educational environment.

2 METHODOLOGY

This study employed a quantitative approach using an experimental research design with a pre-test and post-test to investigate the effectiveness of the @jayfujiwara TikTok account in improving students' vocabulary mastery. Creswell, (2011) A quantitative approach is appropriate for examining causal relationships between variables through statistical analysis. The independent variable was the type of instructional treatment, consisting of an experimental class that received TikTok-based instruction and a control class that received conventional instruction, while the dependent variable was students' vocabulary mastery. The population of this study consisted of eleventh-grade students from the Office Management Expertise Program at SMK Negeri 1 Dukuhturi in the 2025/2026 academic year. The sample comprised 72 students divided into two intact classes, with 36 students assigned to

the experimental group and 36 students to the control group. The participants were selected using Cluster Random Sampling, in which intact classes were randomly chosen as research samples because students were naturally organized into classroom groups, making this technique more practical and representative in educational research (Fiqri et al., 2022).

The experimental group received vocabulary instruction through 10–15 short educational videos from the @jayfujiwara TikTok account over a two-week period. Each video presented target vocabulary, pronunciation, meanings, and contextual examples based on the microlearning approach. Meanwhile, the control group received conventional vocabulary instruction without using TikTok. Before the treatment, both groups completed a vocabulary pre-test to measure their initial vocabulary mastery. After the treatment, both groups completed a post-test with a comparable level of difficulty to evaluate vocabulary improvement. Data were collected using a vocabulary achievement test administered through Google Forms. The instrument consisted of 35 multiple-choice items and 5 short-answer questions designed to assess students' vocabulary mastery. Prior to its implementation, the instrument was examined for validity and reliability to ensure that it accurately and consistently measured the intended construct (Boateng et al., 2018);(Taber, 2018). Responses were automatically recorded and exported for statistical analysis using IBM SPSS Statistics version 26.

The collected data were analyzed using descriptive and inferential statistics. Fatih et al., (2026) Descriptive statistics were used to summarize students' performance, while the Shapiro–Wilk test was conducted to examine data normality because it is appropriate for small to medium sample sizes. Levene's test was applied to determine the homogeneity of variances. Subsequently, paired-samples t-tests were used to examine vocabulary improvement within each group, whereas an independent-samples t-test was employed to compare the post-test results between the experimental and control groups. Statistical significance was determined at the 0.05 level.

Based on the research objectives and the experimental design, this study formulated two research hypotheses to evaluate the effectiveness of the instructional treatment. The first hypothesis examined whether the use of the @jayfujiwara TikTok account effectively improved students' vocabulary mastery, while the second hypothesis investigated whether there was a significant difference in vocabulary mastery between students who received TikTok-based instruction and those who learned through conventional methods. The hypotheses were formulated as follows:

1. H_1 : The use of the @jayfujiwara TikTok account is effective in improving the vocabulary mastery of eleventh-grade students at SMK Negeri 1 Dukuhturi.
2. H_2 : There is a significant difference in vocabulary mastery between students who learn through the @jayfujiwara TikTok account and those who receive conventional instruction.

3 RESULTS

3.1 Descriptive Statistics

The descriptive statistics indicate that both groups had relatively similar vocabulary mastery before the treatment. After the implementation of the learning intervention, the experimental group demonstrated a substantially greater improvement than the control group.

Table 3.1 Descriptive Statistics Result

Group	Test	N	Minimum	Maximum	Mean	Std. Deviation
Control	Pre-test	36	20	98	61.89	23.810
Control	Post-test	36	31	89	64.89	13.266
Experimental	Pre-test	36	33	100	60.36	17.665
Experimental	Post-test	36	62	98	82.75	8.517

As presented in Table 1, the experimental group improved by 22.39 points, whereas the control group improved by only 3.00 points. Although both groups began with comparable pre-test scores, the post-test results reveal a much higher level of vocabulary mastery among students who learned using the @jayfujiwara TikTok account. These findings suggest that the treatment contributed substantially to students' vocabulary improvement rather than the improvement occurring naturally through regular classroom instruction.

Normality Test

Before testing the hypotheses, the data were examined using the Shapiro–Wilk normality test.

Table 3.2 Normality Test Result

Group	Test	N	Shapiro–Wilk Sig.	Criterion	Conclusion
Control Group	Pre-test	36	0.064	Sig. > 0.05	Normally distributed
Control Group	Post-test	36	0.147	Sig. > 0.05	Normally distributed
Experimental Group	Pre-test	36	0.178	Sig. > 0.05	Normally distributed
Experimental Group	Post-test	36	0.266	Sig. > 0.05	Normally distributed

The normality of the data was assessed using the Shapiro–Wilk test. The decision rule was as follows: if the significance value (p-value) was greater than 0.05 ($p > 0.05$), the data were considered normally distributed. Conversely, if the significance value was less than 0.05 ($p < 0.05$), the data were considered not normally distributed.

All significance values exceeded 0.05, indicating that the data were normally distributed. Therefore, the assumption of normality was satisfied, allowing the use of parametric statistical analyses, including the paired-samples t-test and independent-samples t-test.

Homogeneity Test

A homogeneity test was performed using Levene's Test to determine whether the variances of the experimental and control groups were equal (Sugiono, 2013). This procedure is necessary before conducting an independent-samples t-test because equal variances ensure the validity of the comparison between groups.

Table 3.3 Homogeneity Test Result

Levene's Test	F	Sig.	Interpretation
Post-test Scores	4.852	0.031	Not homogenous

The analysis showed that the significance value obtained from Levene's Test was greater than 0.05 ($p > 0.05$). Consequently, the variances of the two groups were homogeneous, indicating that the participants shared comparable variability in vocabulary scores and that the assumption of homogeneity had been satisfied.

Paired-Samples t-Test

A paired-samples t-test was conducted to determine whether there was a statistically significant difference between students' pre-test and post-test scores within each group. (Goddek & Vermeulen, 2018) This analysis was intended to evaluate the effectiveness of the instructional treatment by measuring the extent to which students' vocabulary mastery improved after the learning process. The comparison of pre-test and post-test scores provides evidence of whether the learning activities contributed to meaningful changes in students' vocabulary achievement.

Table 3.4 Paired-Samples Statistics

Group	Test	Mean	N	Std. Deviation
Control Group	Pre-test	61.89	36	23.810
Control Group	Post-test	64.89	36	13.266
Experimental Group	Pre-test	60.36	36	17.665
Experimental Group	Post-test	82.75	36	8.517

Based on Table above, the mean score of the control group increased from 61.89 in the pre-test to 64.89 in the post-test, indicating an average improvement of 3.00 points. Meanwhile, the experimental group showed a greater increase, with the mean score rising from 60.36 in the pre-test to 82.75 in the post-test, indicating an average improvement of 22.39 points after receiving instruction using the @jayfujiwara Tik-Tok account.

Table 3.5 Paired Samples t-Test Result

Group	Mean Difference	t	df	Sig. (2-tailed)	Decision
Control Group	-3.000	-0.768	35	0.448	No Significant Improvement
Experimental Group	-22.389	-7.307	35	0.000	Significant Improvement

The analysis revealed that the experimental group demonstrated a statistically significant improvement in vocabulary mastery after receiving instruction through the @jayfujiwara TikTok account ($p < 0.05$). The increase in post-test scores indicates that students were able to acquire and retain more vocabulary after participating in the TikTok-based learning activities. The combination of visual presentation, audio pronunciation, contextual examples, and concise explanations provided by the learning videos may have facilitated students' understanding and recall of new vocabulary.

The control group also showed an improvement in vocabulary mastery after receiving conventional instruction. However, the magnitude of improvement was lower than that observed in the experimental group. This finding suggests that although traditional classroom instruction remains beneficial for vocabulary learning, the integration of TikTok as a microlearning platform provides additional learning support that enhances students' vocabulary acquisition more effectively. Therefore, the paired-samples t-test results indicate that the instructional treatment produced a positive effect on students' vocabulary mastery.

Independence-Samples t-Test

An independent-samples t-test was used to assess if a significant difference in vocabulary knowledge existed between students instructed via the @jayfujiwara TikTok account (experimental group) and those taught using traditional techniques (control group). Based on the study methods, the outcome of Levene's Test indicated that the data were not homogeneous (Sig. = $0.031 < 0.05$), so the Equal Variances Not Assumed row was employed for the interpretation of the t-test results.

Table 3.6 Independence-Samples t-Test

Test	t	df	Sig. (2-tailed)	Mean Differences	Decision
Equal Variances not assumed	-6.798	59.662	0.000	-17.861	Significant Difference Between Groups

The statistical analysis produced a significance value (Sig. 2-tailed) of 0.000, which was lower than the predetermined significance level of 0.05. Since the obtained significance value was below the acceptance threshold, the null hypothesis was rejected, indicating that a statistically significant difference existed between the post-test scores of the experimental and control groups. These results confirm that students who received TikTok-based instruction achieved significantly better vocabulary mastery than those who learned through conventional teaching methods.

The findings demonstrate that incorporating the @jayfujiwara TikTok account into English vocabulary instruction provides a more effective learning experience than traditional classroom instruction alone. The short-video format enables students to access learning materials repeatedly, while audiovisual content and contextual vocabulary presentation encourage greater engagement and facilitate vocabulary retention. Consequently, the independent-samples t-test provides empirical evidence that TikTok-based microlearning can significantly improve students' vocabulary mastery and serves as an effective instructional medium for English language learning.

Hypothesis

The research hypotheses were tested using the results of the paired-samples t-test and the independent-samples t-test at a significance level of 0.05. The paired-samples t-test was employed to examine the improvement in vocabulary mastery within each group before and after the treatment, whereas the independent-samples t-test was conducted to compare the post-test scores between the experimental and control groups. These analyses were used to determine whether the instructional treatment produced a statistically significant effect on students' vocabulary mastery.

The first hypothesis (H_1) proposed that the use of the @jayfujiwara TikTok account is effective in improving students' vocabulary mastery. The paired-samples t-test revealed a statistically significant difference between the pre-test and post-test scores of the experimental group ($p < 0.05$), indicating that students demonstrated substantial improvement after receiving TikTok-based vocabulary instruction. Therefore, the first hypothesis was accepted, confirming that the instructional treatment effectively enhanced students' vocabulary mastery.

The second hypothesis (H_2) stated that there is a significant difference in vocabulary mastery between students who learned through the @jayfujiwara TikTok account and those who received conventional instruction. The independent-samples t-test yielded a significance value (Sig. 2-tailed) of 0.000, which was lower than the significance level of 0.05. This result indicates a statistically significant difference between the two groups, with the experimental group achieving better vocabulary learning outcomes

than the control group. Accordingly, the second hypothesis was accepted, demonstrating that the use of the @jayfujiwara TikTok account was more effective than conventional instruction in improving students' vocabulary mastery.

4 CONCLUSIONS

This study concludes that the use of the @jayfujiwara TikTok account is effective in improving the vocabulary mastery of eleventh-grade students at SMK Negeri 1 Dukuhturi. The descriptive statistics demonstrated that although both the experimental and control groups showed improvement after the instructional period, the experimental group achieved substantially greater gains. Students who received TikTok-based instruction increased their mean score from 60.36 to 82.75, while the control group showed only a slight improvement from 61.89 to 64.89.

The inferential statistical analyses further confirmed the effectiveness of the instructional treatment. The results of the Shapiro–Wilk normality test indicated that all data were normally distributed, allowing the use of parametric statistical analyses. Although Levene's Test showed that the post-test variances were not homogeneous, the independent-samples t-test was appropriately interpreted using the Equal Variances Not Assumed procedure. These statistical procedures ensured that the hypothesis testing was conducted using appropriate analytical methods.

The paired-samples t-test revealed that the experimental group experienced a statistically significant improvement in vocabulary mastery after learning through the @jayfujiwara TikTok account, whereas the improvement observed in the control group was not statistically significant. Furthermore, the independent-samples t-test demonstrated a significant difference between the post-test scores of the experimental and control groups ($p = 0.000 < 0.05$). Consequently, both research hypotheses were accepted, indicating that TikTok-based instruction was significantly more effective than conventional teaching in enhancing students' vocabulary mastery.

These findings provide empirical evidence that integrating TikTok into English language instruction can create a more engaging and effective vocabulary learning environment. The short-video format, audiovisual presentation, pronunciation practice, and contextual examples available in the @jayfujiwara TikTok account support students in understanding, retaining, and recalling new vocabulary more effectively. The results also reinforce the potential of microlearning as an instructional approach that aligns with students' digital learning habits and promotes active participation during the learning process.

This study contributes to the growing body of research on technology-assisted language learning by demonstrating the educational potential of a specific TikTok account in improving vocabulary mastery among vocational high school students. The findings suggest that English teachers may consider incorporating well-designed educational TikTok content as a complementary learning medium to support classroom instruction. Future studies are recommended to involve larger and more diverse samples, longer treatment periods, and additional language skills, such as speaking, listening, reading, or writing, to further explore the effectiveness of TikTok-based learning in different educational contexts.

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