

The Effectiveness of Webtoon in Enhancing Past Verbs for Junior High School Students

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ABSTRACT

This study investigated the effectiveness of using Webtoon to enhance English vocabulary mastery among eighth-grade students at SMPN 1 Siantan. A one-group pretest-posttest design of pre-experimental was employed, with 33 students selected through cluster random sampling. Data were collected using pre-tests and post-tests in the form of multiple-choice test. The analysis of the t-test results indicated a significant improvement in students' mastery of past verbs after the use of Webtoon in instruction. The calculated t-test value was 22.595, which substantially exceeded the critical t-table value of 1.694. This statistical outcome led to the rejection of the null hypothesis and the acceptance of the alternative hypothesis, confirming that Webtoon had a positive impact on students' understanding of past verbs. Additionally, the effect size was determined to be 3.91, signifying a substantial effect. These results underscore the effectiveness of incorporating Webtoons into the teaching strategy for enhancing students' English vocabulary, particularly in mastering past verbs.

Keywords: Past verbs, Webtoon, Junior High School

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INTRODUCTION

Vocabulary plays a crucial role in language learning, particularly in English, as it underpins the development of all four essential language skills: reading, speaking, writing, and listening (Asyiah, 2017; Dauletova & Rahimova, 2022; Susanto, 2017a). The acquisition of a robust vocabulary is vital for students to enhance their overall proficiency in these skills (Alqahtani, 2015). Without a sufficient vocabulary, students are limited in their ability to express themselves accurately and comprehensively, which hampers effective communication (Alqahtani, 2015; Celce-Murcia et al., 2014; Susanto, 2017a). This makes vocabulary learning a critical component of language education.

Research has consistently shown that a rich vocabulary is fundamental to academic success, particularly in educational settings where English is the medium of instruction. Students who invest time and effort in acquiring an extensive vocabulary experience significant benefits in their language learning journey. A strong vocabulary not

only enhances written and verbal communication but also plays a crucial role in understanding the meanings of words, thus facilitating better comprehension and meaningful interaction (Hakim, Abidin & Bahari, 2020). Moreover, mastering vocabulary is essential for effective oral communication and overall language proficiency, making it a priority in second language instruction (Susanto, 2017a).

The process of vocabulary acquisition is complex and requires a systematic approach to ensure that students can acquire, retain, and produce new words effectively. This necessitates the development of suitable techniques and teaching methods by educators to support successful vocabulary learning. Mastery of vocabulary involves more than just memorizing word lists; it requires the ability to understand, recognize, and use a wide range of words and their meanings in various contexts (Yanti, 2017). Therefore, teachers must employ instructional strategies that promote deep learning of vocabulary, particularly in contexts where students face challenges in mastering language skills.

One innovative approach to vocabulary instruction is the use of Webtoon, a popular digital platform that combines storytelling with visual elements. Webtoon offers an engaging medium for vocabulary learning, making the process more interactive and enjoyable for students (Novanti & Suprayogi, 2021). The integration of attractive media like Webtoon has been shown to enhance students' motivation and participation in language learning (Lede & Swartini, 2020). However, the success of such digital tools in vocabulary acquisition largely depends on the methodologies employed by educators. As noted by Røkenes and Krumsvik (2016), the development of ICT competence among teachers is crucial for the effective use of digital media in education, emphasizing the need for teachers to be well-versed in various technological tools to facilitate English language teaching.

Preliminary research conducted among eighth-grade students at SMPN 1 Siantan highlighted the challenges these students face in vocabulary acquisition, which negatively impacts their ability to express ideas in English. This finding underscores the importance of vocabulary mastery in acquiring other language skills and suggests a need for targeted instructional strategies (Susanto, 2017b). Effective teaching materials, such as Webtoon, can play a crucial role in overcoming these challenges by making vocabulary learning more engaging and effective (Alqahtani, 2015).

Previous studies have demonstrated the effectiveness of using comics and Webtoon as tools for vocabulary acquisition. For example, Aziza (2020) reported that Webtoon could improve student engagement and retention, while Juliana (2021) found that digital comics significantly enhanced vocabulary acquisition compared to traditional methods. Additionally, Novanti and Suprayogi (2021) highlighted the positive impact of visual storytelling on language learning, citing increased student motivation. Sabekti (2020) also observed that Webtoon contributed to better vocabulary retention and comprehension in classroom settings.

Despite these positive outcomes, most studies have focused on the general effectiveness of Webtoon without delving into specific aspects of vocabulary acquisition. There remains a significant gap in the literature regarding the use of Webtoon for teaching

particular vocabulary components, such as verb tenses or grammatical structures. This research aims to address this gap by specifically investigating the effectiveness of Webtoon in teaching past-tense verb actions to eighth-grade students. Mastering verb tenses is a critical aspect of language learning, influencing both written and spoken communication.

The novelty of this research lies in its focused approach. Unlike previous studies that provided a broad assessment of Webtoon's effectiveness, this study zeroes in on a specific and essential component of vocabulary learning—past-tense verbs. By doing so, it not only fills a critical gap in the literature but also offers practical insights that can directly benefit educators and students. The expected outcomes of this research will provide valuable guidance for teachers looking to incorporate Webtoon into their curriculum and will also serve as a foundation for future studies on targeted vocabulary instruction using digital media. This focused approach ensures that the findings are both relevant and applicable, enhancing the teaching and learning process in meaningful ways.

METHOD

This research employed a pre-experimental study using a one-group pretest-posttest design, a method that involves observing participants at two distinct time points: before the treatment (pre-test) and after the treatment (post-test). The purpose of this design is to determine whether any significant changes occur in the dependent variable following the intervention or treatment (Creswell, 2014). This methodical approach ensures that the study's findings are both accurate and reliable, offering valuable insights into the effectiveness of Webtoon as an instructional tool for enhancing students' mastery of past verbs. The procedure of the selected design in this research involved pre-test (O_1), treatment (X_1 , X_2 , and X_3), and post-test (O_2).

The pre-test was done before the intervention or the treatment. It was administered to assess the students' initial competence in using past verbs. This test provided baseline data on the students' vocabulary skills. The pre-test in the form of multiple-choice test designed to evaluate students' mastery of past verbs. After the pre-test, the researcher gave three treatments in which the Webtoon was used as the media. The activities of treatment 1, treatment 2, and treatment 3 were different. The use of Webtoon as an educational tool is supported by studies that highlight its effectiveness in engaging students and facilitating vocabulary acquisition (Novanti & Suprayogi, 2021; Lede & Swartini, 2020). The last was administering post-test to measure any changes in the students' performance regarding past verbs. Like the pre-test, post-test was also done in the form of multiple-choice test to determine the effectiveness of the Webtoon intervention. The results of the post-test were compared with the pre-test to evaluate the impact of the treatment on the dependent variable.

The sample for this research comprised 33 students from Class C of Grade VIII at SMPN 1 Siantan, Kubu Raya Regency in West Kalimantan. These students were selected using a cluster random sampling technique since the groups/ the classes have similar characteristics, so the selected sample was the representation of the population (Kubiszyn

& Borich, 2013). The selected students exhibited varying levels of English proficiency, ranging from low to moderate backgrounds.

Data collection was conducted using a measurement technique designed to assess the effectiveness of Webtoon as an intervention. The primary tool for data collection was a multiple-choice test administered during both the pre-test and post-test phases consisting of 20 questions with a, b, c, and d option. The validity of the test items was confirmed, with an average validity index of 0.59, categorized within the medium range ($0.59 > 0.31$; $0.59 < 0.70$). The reliability of the test was calculated using the KR-21 formula, yielding a reliability coefficient of 0.671, which is considered substantial ($0.671 > 0.60$; $0.671 < 0.79$).

Data analysis followed a systematic procedure consisting of (1) calculating individual scores for both pre-test and post-test; (2) determining the mean scores of the students; (3) calculating the mean difference (MD) between the pre-test and post-test scores; (4) conducting a t-test to determine the statistical significance of the mean difference; (5) comparing the t-test results with the critical value from the t-table; (6) testing the hypothesis with the criterion that "if the t-test value exceeds the t-table value, the alternative hypothesis (H_a) is accepted, and the null hypothesis (H_0) is rejected"; and (7) calculating the effect size to measure the magnitude of the treatment effect.

FINDING AND DISCUSSION

This study sought to explore the effectiveness of Webtoon, a popular digital comic platform, in enhancing students' English vocabulary, specifically focusing on past verbs. To assess the impact of Webtoon in the classroom, we analyzed students' performance by comparing their scores before and after the intervention. The results were striking: the average pre-test score was 52.88, which increased significantly to 83.48 on the post-test after incorporating Webtoon into the learning process. This substantial improvement underscores Webtoon's potential to make learning more effective and engaging.

In the pre-test, the scores ranged from a minimum of 20 to a maximum of 95. Out of 33 students, 28 failed to meet the minimum passing score of 75, while 5 students achieved or exceeded this threshold. After the Webtoon intervention, the post-test results showed a considerable improvement, with scores ranging from 55 to 100. Only 4 students did not pass the test, whereas 29 students met or exceeded the minimum passing score. These results suggest a significant enhancement in students' academic performance following the integration of Webtoon as a vocabulary learning tool. Table 1 and Chart 1 below illustrate the data analysis result.

Table 1. Summary of statistical analysis of pretest and posttest score

Data	Statistic	Score
Pre-test	Mean score	52.88
	Lowest score	20
	Highest score	95
Post-test	Mean score	83.84
	Lowest score	55
	Highest score	100

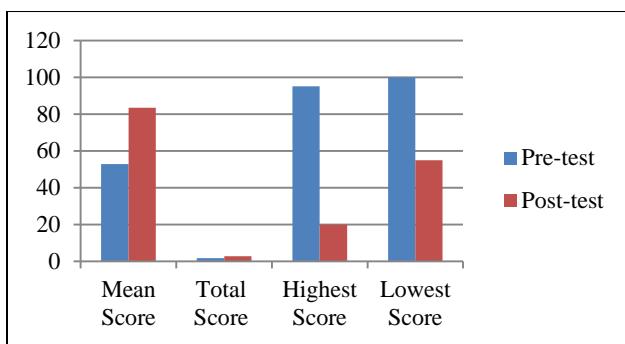
**Chart 1. Data presentation of pretest and posttest**

Table 1 and Chart 1 provide a quantitative summary of the pre-test and post-test scores, highlighting the changes in students' proficiency in mastering past verbs. The data illustrate the initial proficiency levels, with a pre-test mean score of 52.88, and the positive changes observed post-intervention, where the mean score rose to 83.84. The lowest score in the post-test was 55, indicating an improvement even at the lower end, while the highest score reached 100, showcasing significant progress in students' mastery of past verbs through Webtoon's integration.

To analyze the effectiveness of the intervention, a t-test was conducted, revealing a t-test value of 22.595, which far exceeded the critical t-table value of 1.694. This result led to the rejection of the null hypothesis (H_0) and acceptance of the alternative hypothesis (H_a), indicating that the use of Webtoon had a significant positive effect on students' English vocabulary mastery. The analysis of the effect size further supported these findings, with a calculated effect size of 3.91, which is considered a strong effect (Ary et al., 2012).

The primary objective of this study was to assess the efficacy of Webtoon as an instructional tool for enhancing eighth-grade students' mastery of past-tense English verbs. The significant differences observed between the pre-test and post-test scores align with the findings of previous studies, such as those by Sabekti (2020) and Aziza (2020), which also reported positive effects of using digital comics on students' vocabulary acquisition. These studies, along with the current research, provide strong evidence that Webtoon is an effective tool for vocabulary instruction.

A critical factor contributing to the success of Webtoon's implementation was the students' enthusiasm for the platform. The combination of visual and textual elements in Webtoon captured students' interest and encouraged active participation in vocabulary-related activities. This finding is consistent with the observations of Juliana (2021) and Novanti & Suprayogi (2021), who noted that the engaging nature of Webtoons can enhance student motivation and learning outcomes.

Despite the positive results, the study faced some challenges, particularly related to time constraints. The limited duration of each learning session, set at forty minutes due to the school's schedule, posed a challenge. To address this, the researcher collaborated with the eighth-grade English teacher to allow additional instructional time, ensuring the intervention was effectively implemented.

The unique contribution of this research lies in its focused approach. While previous studies broadly assessed Webtoon's effectiveness, this study specifically targeted vocabulary learning, particularly the mastery of past verbs. This targeted focus not only fills a gap in the existing literature but also offers practical insights for educators. The findings are expected to provide valuable guidance for teachers considering the incorporation of Webtoon into their teaching practices and lay the groundwork for future research on targeted vocabulary instruction using digital media.

In conclusion, the study demonstrates that Webtoon is a highly effective tool for improving students' English vocabulary mastery, particularly in the area of past verbs. The significant increase in students' scores from pre-test to post-test, coupled with the strong effect size, confirms Webtoon's potential as a valuable instructional resource. Therefore, it is recommended that eighth-grade teachers in junior high schools consider incorporating Webtoon into their vocabulary teaching strategies to enhance student learning outcomes.

CONCLUSION

Based on data obtained from all respondents, the level of perception of FKIP Based on the findings of this study, it can be concluded that the implementation of Webtoon was highly effective in enhancing students' English vocabulary mastery, particularly in the area of past verbs. This conclusion is supported by the significant increase in students' mean scores from the pre-test to the post-test. The results clearly indicate that the use of Webtoon had a substantial positive impact on students' vocabulary acquisition. This was further evidenced by the t-test result of 22.595, which was considerably higher than the t-table value of 1.694 with a degree of freedom of 32 ($22.595 > 1.694$). Additionally, the effect size analysis revealed a strong effect of the treatment, with a calculated effect size of 3.91, well above the threshold for a strong effect ($3.91 > 1.00$). These findings suggest that Webtoon is a powerful tool for improving vocabulary mastery, particularly in teaching past verbs to students at SMPN 1 Siantan. Consequently, it is recommended that eighth-grade teachers in junior high schools consider incorporating Webtoon into their vocabulary instruction as an effective and engaging educational medium.

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