
**THE EFFECTIVENESS OF USING 3G WEB-BASED QUIZ
FOR LEARNING SIMPLE PAST TENSES AT X GRADE OF SMAN 4 KOTA BLITAR**

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ABSTRACT

Understanding tenses, particularly the Simple Past Tense, is essential for students' proficiency in English, yet many struggle due to the differences between English and Indonesian grammar. This study aims to determine the effectiveness of the 3G Web-Based Quiz in enhancing the learning of the Simple Past Tense among students of Class X at SMAN 4 Kota Blitar. This study uses a pre-experimental design with a one-group pretest-posttest methodology. Purposive sampling was used to select 36 students from SMAN 4 Kota Blitar's Class X J. Students' scores from before and after the treatment were compared to determine how effective the web-based quiz was. The student's performance significantly improved, as evidenced by the post-test results, with the average pre-test score of 61.03 increasing to 82.94 in the post-test. Statistical analysis using a paired sample t-test revealed a calculated significance value (Sig. 2-tailed) of 0.001, indicating $< \alpha 0.05$. Therefore, H_0 is rejected and H_a is accepted. This means that the pre-test and post-test scores differ significantly, indicating that 3G web-based quizzes effectively improve the learning achievement of Simple past tenses of class X students at SMAN 4 Blitar. The findings support the conclusion that 3G Web-Based Quizzes effectively improve the learning outcomes of the Simple Past Tense among high school students, making them a valuable tool for educators looking to improve grammar instruction.

Keywords: *Effectiveness; 3G Web-Based Quizzes; Learning Simple Past-Tense.*

INTRODUCTION

Numerous studies and educational theories have supported technology integration in language learning. According to Prensky (2001) in Smith, (2012), digital natives, or students who have grown up with technology, exhibit different learning preferences and are more engaged when technology is incorporated into their education. Additionally, the use of quizzes as a form of formative assessment has been shown to improve retention and understanding of the material (Roediger & Butler, 2011).

Technology in language education creates a multi-sensory learning environment that accommodates different learning styles, such as visual, auditory, and kinesthetic learners. For instance, web-based quizzes often include multimedia elements such as videos, audio clips, and interactive tasks, making grammar lessons more dynamic and engaging. This aligns with Mayer, (2009) cognitive theory of multimedia learning, which posits that learners achieve better outcomes when they can process information through multiple channels. By integrating multimedia elements, the 3G (Go Gold Generation) web-based quiz not only enhances student engagement but also supports deeper cognitive processing, leading to better retention of grammatical rules.

Furthermore, the immediate feedback provided by web-based quizzes is crucial for language learning. Instant feedback helps students identify and correct their mistakes in real-time, which is essential for mastering complex grammatical structures. According to Shute, (2008) timely and informative feedback significantly improves learning outcomes by guiding students through the learning process and helping them adjust their strategies accordingly. The 3G (Go Gold Generation) web-based quiz leverages this advantage by offering instant feedback on students' answers, thereby promoting active learning and continuous improvement in grammar proficiency.

Grammar is a fundamental component of all language skills, intending to allow students to communicate orally using the target language (Paulston & Bruder, 1976) . Mastery of grammar rules, such as the correct use of simple past tenses, is crucial for students to express themselves accurately and fluently. Harmer, (2008) emphasizes that a strong grasp of grammar not only improves students' communicative competence but also enhances their ability to comprehend and analyze complex texts. Furthermore, understanding English grammar is critical for academic success, as it underpins many aspects of language arts education and standardized assessments. When learning English, students must be aware of the appropriate sentence structures to use in various situations. Most students/learners require some basic grammar guidance to progress more quickly. In most cases, the least able students require a grammar approach to language learning the most, rather than those who regard grammar as an 'unnecessary difficulty' (Rossiter, 2021).

English language instruction employs a variety of tenses. Understanding the various tenses is crucial (Alimah, 2015). One of them is the simple past, which high school students in the tenth grade must comprehend. This text is used to describe something that happened in the past Understanding tenses, especially grammar, in English as a second language can be challenging, which often leads to students struggling to apply the simple past tense in practical contexts. When they encounter grammar, particularly the simple past tense in narrative texts, they face several challenges. Firstly, they lack familiarity with the simple past tense. Secondly, they experience confusion when using it, including difficulties in differentiating between regular and irregular forms, misunderstanding the significance of time markers in both past and present tenses, and having trouble using singular and plural subjects with auxiliary verbs (Pabayo et al., 2022).

likewise, based on the researcher's interviews with English teachers when they teach grammar, on understanding and learning grammar based on tense, particularly the simple past tense. It is said that only a few students in grade ten understand grammar lessons that

focus on the simple past tense. This is due to students' passivity in the classroom; students have been traumatized from the start that English is a scourge; for students, English is an inconsistent language, and grammar is one of the aspects that they believe is extremely complicated. For example, why is it difficult and unmotivating for students to speak in the present (I go...) while speaking in the past (I went...). However, it is different for students who enjoy English; English is a fun and challenging language. As a result, it is possible to conclude that students struggle to master grammar material, particularly with tenses.

As noted by Brown, (2007) incorporating multimedia and interactive tools can address the diverse needs of learners, making language acquisition more accessible and effective. The use of 3G web-based quizzes, therefore, represents a meaningful advancement in educational technology, providing an adaptable platform that can enhance the learning experience for all students. Although technology is widely used in education, there is still a lack of empirical research on the advantages of 3G web-based quizzes for learning grammar. Existing literature often highlights the general advantages of digital tools in education but lacks focused studies on applications like grammar quizzes.

1.1. Purpose of the study

This research aims to fill this gap by providing evidence on the effectiveness of 3G web-based quizzes in enhancing students' learning understanding and use of the simple past tense. The findings could demonstrate the practical benefits of integrating 3G technology in grammar instruction, supporting more interactive and effective learning experiences.

1.2. Research questions

The following could be the format of the research questions for this study:

- 1) How does the 3G Web-Based Quiz affect students' understanding of the simple past tense?
- 2) What are the perceived benefits of using 3G Web-Based Quiz in enhancing grammar learning among tenth-grade students?
- 3) How do students' attitudes and engagement with 3G Web-Based Quiz influence their learning outcomes in grammar?

1.3. Research hypothesis

The hypothesis of this research is formulated as follows:

H_0 : The null hypothesis is there is no effectiveness of the 3G Web Based Quiz on students' learning simple past tense in class X SMAN 4 Kota Blitar.

H_a : The alternative hypothesis is the effectiveness of the 3G Web Based Quiz on students' learning simple past tense in class X SMAN 4 Kota Blitar.

An efficient way to teach grammar in English language learning is through web-based quizzes. The following summaries of previous studies on the impact of web-based learning on the acquisition of English grammar come from several researchers. First research, Alimah,

(2015) research entitled "The Effectiveness of Using "Hot Potatoes" to Teach Students "Simple Present Tense" at SMPN 1 Ngunut Tulungagung". Researchers used experimental research with a pre-experiment design and a quantitative approach. It was concluded that the use of the hot potatoes quiz proved to be beneficial and recommended to be used to improve grammar competence, especially in simple present tense.

The second research, by Yusof & Saadon, (2012) with the title "The Effect of Web-based Language Learning on Students' Grammar Proficiency". Finally, the results show that the integration method is the most effective way to teach grammar as it can improve student performance. This research suggests that increased use of this approach by lecturers should be promoted to make grammar meetings more enjoyable and easier for students to understand. Another research that is one of the references in this study by Riszkasari et al., (2022) with the title "Go Gold Generation Web-Based Quiz for Teaching and Learning Grammar in Senior High School: Research and Development". These findings indicate that the 3G Web-Based Quiz is a reliable, appropriate, and useful tool for teaching and learning grammar for high school students in grade ten who take the class in the second semester.

The conclusion of this literature review shows that web-based quizzes are an effective method for teaching English grammar. The study by Putri Maya Alimah (2015) showed an increase in students' grammar scores from 76.00 to 88.49 after using the "Hot Potatoes" quiz. Research by Nor Ashikin Yusof and Norkamruzita Saadon (2012) found that the integrative method, which combined conventional and web-based materials, was the most effective in improving students' grammar ability, without being affected by gender. Meanwhile, research by Riszkasari et al. (2022) on "Go Gold Generation Web-Based Quiz" showed that this tool is highly valid and accepted by both students and teachers as a reliable and useful tool for grammar teaching in secondary schools. Overall, the reviewed studies indicate that incorporating web-based quizzes into grammar instruction can significantly improve students' learning outcomes, making grammar lessons more enjoyable and effective.

METHOD

This research took on a pre-experiment design and a quantitative approach. Data was collected from tests. Pre-experiment design: The study used a one-group Pre-Test and Post-Test design with an emphasis on using a 3G Web-based quiz to teach grammar, specifically the simple past tense.

The target population for this study comprises tenth-grade students from SMAN 4 Blitar City during the 2023/2024 academic year. One class has been selected as the sample. According to Sugiyono (2018), a sample represents a subset of the population, reflecting its characteristics and size. In this study, the sample used was one class consisting of 36 students in class X J at SMAN 4 Blitar City. The sample group consists of a control group and an experimental group. Non-probability sampling, which is included in the purposive sampling category, was used in this study. Purposive sampling also called judgment sampling, selects sample elements from the population that are considered typical or representative (Ary et al., 2018). And also in consideration of several factors suggested by the English teacher at SMAN 4 Blitar City.

This research procedure consists of a trial to determine validity and reliability, pre-test, treatment, and post-test. The same questions that had previously been examined for validity

and reliability were employed as the research instrument, and they were also used as a pre- and post-test. The Try-Out test consisted of 50 questions. The reliability and validity of the test were assessed using Cronbach's Alpha, and the test's reliability was determined by a value of 0.911, which was higher than 0.70.

On May 14, 2024, a pilot test for this study was conducted with respondents from class XH SMAN 4 in Blitar City. This study aimed to ascertain the validity and reliability of the researcher's instrument before testing. Respondents completed 50 questions in a paper-based

The task took 45 minutes to complete. The trial score was then analyzed by the researcher to proceed with the study, specifically the pre-test.

As a way to assess students' grammar proficiency (simple past tense), the researcher gave a pre-test to the 36 students in class XJ on May 16, 2024. This was done before the students were given treatment using a 3G Web-based quiz in the teaching and learning process. The treatment took place throughout three meetings, from May 17 to May 21, 2024. During the first meeting, the researcher introduced the students to the 3G Web-based quiz application. During the second meeting, the researcher used the 3G Web-based quiz application in the teaching and learning process, with a focus on explaining the simple past. The third meeting focused on practice questions on the 3G Web-based quiz application. While at the fourth meeting, the researcher gave assignments using conventional methods by giving assignments from the student handbook which still covered simple past tense material.

For the last stage, on May 22, 2024, researchers used a 3G Web-based quiz to conduct a post-test and determine the score following treatment. Following the finish of every stage, the researcher used SPSS 29 to analyze the research data. The Paired Sample T-test was used in this study's data analysis. The paired sample t-test, which is characterized by differences in the average before and after treatment is given, is one of the testing methods used to assess treatment efficacy (Widiyanto, 2013). To test the relationship between the independent and dependent variables, a significant 0.05 ($\alpha=5\%$) was used.

In this test, the choice to accept or reject H_0 is based on the following criteria.

- a. H_0 is approved or H_a is rejected if the significant value is more than 0.05 (meaning the performance difference is not statistically significant).
- b. H_0 is rejected or H_a is approved (significant performance difference) if the significant value is less than 0.05.

FINDINGS AND DISCUSSION

This shows that before researchers conduct research, the validity, and reliability of research instruments must be found; to test the validity and reliability of the instrument, researchers use analysis with SPSS 29. The results of validity testing are shown. Total item correlation with Pearson Product Moment using SPSS 29 is the technique used. If the correlation value is higher than 0.329, the question items are considered valid. For $n = 36$ students, the correlation value is 0.329 and can be measured at a significance level of 0.05 using the r table. So, the number of valid items 30 questions and invalid 20 questions were not included to be tested on the pre-test and post-test. This test's reliability is being checked to make sure its

items produce accurate and reliable results. Using SPSS 29, the internal consistency of the items is measured using Cronbach's Alpha method. It is generally accepted that good reliability is indicated by a reliability coefficient (α) value higher than 0.60.

The result of the reliability test on the research varies as follows:

Table 1 Reliability test

Reliability Statistics	
Cronbach's Alpha	N of Items
0,905	50

Based on what the table shows, Cronbach's alpha for this variable is 0.911, which significantly exceeds the acceptable base value of 0.60. This high-reliability coefficient indicates that each question consistently measures the intended construct and contributes positively to the overall reliability of the scale. The strong internal consistency suggests that the items are well-correlated and effective.

Upon collecting pre-test and post-test scores, the researchers proceeded to analyze the data using SPSS 29 to evaluate the effectiveness of the 3G Web-Based Quiz in teaching the simple past tense. This statistical analysis provided a clear understanding of the quiz's impact, allowing the researchers to determine significant improvements in student performance. The following are the results:

Table 2 Descriptive statistics

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
Pretest	36	24	100	2197	61,03	17,297
Posttest	36	52	100	2986	82,94	10,094
Valid N (listwise)	36					

The study involved 36 students from class X J at SMAN 4 Blitar. In the pretest, the scores ranged from a low of 24 to a high of 100. Following the intervention with the 3G web-based quiz, the post-test scores showed improvement, with the lowest score increasing to 52, while the highest score remained at 100. Additionally, there was a notable reduction in the standard deviation, from 17.297 in the pretest to 10.094 in the post-test, indicating a more consistent performance among the students after the intervention.

Before beginning statistical analysis, a normality test is conducted to determine if the data has a normal distribution. This test assesses the distribution of data for a single variable to be used in the study. The Shapiro-Wilk method, implemented via SPSS 29, is utilized for this purpose, particularly because the sample size is less than 100. As discussed by Royston (1982) the Shapiro-Wilk test is particularly suitable and reliable for small sample sizes. If the significance value in the normality test table exceeds 0.05, It suggests that the distribution of the data is normal.

Table 3 Test of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pretest	,124	36	,180	,960	36	,219

Posttest	,107	36	,200*	,951	36	,114
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The Shapiro-Wilk test indicates that the pretest has a p-value of 0.219 based on the results of the normality test in the above table. This p-value indicates that the pretest data are normally distributed, as it exceeds the significance threshold of 0.05. Similarly, the post-test data has a p-value of 0.114, which is also greater than 0.05, indicating that the post-test data is normally distributed as well. These results suggest that both sets of data meet the assumption of normality, which is crucial for subsequent parametric statistical analyses.

A Paired Sample t-test is used to find when the pre-test and post-test results significantly differ since the data of the normality test is normally distributed. According to Field, (2013) "Paired sample t-test is used when you have two related measurements in the same group, such as measurements before and after intervention in the same group. This test uses the assumption that the differences between pairs of measurements are normally distributed to find when the pre-test and post-test results differ significantly.

Table 4 Paired Sample Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	61,03	36	17,297	2,883
	Posttest	82,94	36	10,094	1,682

The data presented above compares students' grammar scores before and after learning with the 3G Web-Based Quiz. A total of 36 students participated in both the pretest and posttest. The mean score for the pretest was 61.03, while the mean score for the posttest significantly increased to 82.94. This marked improvement highlights the effectiveness of the 3G Web-Based Quiz in enhancing students' understanding and application of grammar rules.

Table 5 Paired Sample Test

		Paired Differences					Significance		
		Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference		t	df	Two-tailed p
					Lower	Upper			
Pair 1	Pretest - Posttest	-21,917	16,951	2,825	-27,652	-16,181	-7,758	35	<,001

Based on the presented data, The t-value calculated is 7.758 with 35 degrees of freedom and a significance level (Sig. 2-tailed) of 0.001, lower than the α level of 0.05. Therefore, the null hypothesis (Ho) is rejected, indicating that there is sufficient evidence to accept the alternative hypothesis (Ha). This represents a significant difference in scores between the pre-test and post-test, demonstrating the efficacy of using 3G web-based quizzes to improve learning outcomes in understanding the simple past tense among Class X students at SMAN 4 Blitar. The study's findings show a significant increase in average scores from the pre-test (61.03) to the post-test (82.94), indicating enhanced learning achievement facilitated using 3G Web-based quizzes. These findings strongly support the initial hypothesis that integrating such quizzes effectively enhances students' ability to grasp and apply grammar concepts, particularly concerning tense usage.

The comparison of the calculated t-value (7.758) with the critical t-table value (2.030) reinforces the conclusion that the observed improvement in grammar scores is statistically significant ($p < 0.05$). This statistical significance underscores the practical benefits of utilizing digital tools like 3G web-based quizzes in educational settings, offering interactive learning experiences that foster better comprehension and retention of grammar rules. In essence, the study provides compelling evidence that integrating 3G web-based quizzes into language learning curricula can lead to substantial improvements in students' grammar proficiency, thereby supporting more effective and engaging educational practices in high school environments.

The findings of this study encourage the suggestion provided by Riszkasari et al., (2022) that researchers investigate the effectiveness of the Go Gold Generation (3G) Web-Based Quiz, focusing on the practical significance of this tool to enhance English language teaching and learning for both teachers and high school students who took classes in the tenth grade. Additionally, various perspectives indicate that incorporating web-based quizzes can foster greater student engagement and enthusiasm. According to Yusof & Saadon, (2012), web-based learning methods are deemed highly effective for grammar instruction due to their ability to enhance overall student performance in language learning contexts. These insights underscore the growing recognition of digital tools like 3G web-based quizzes as transformative aids in modern educational practices, particularly in facilitating interactive and effective learning environments.

CONCLUSION

This study seeks to address the gap in the literature concerning the impact of 3G (Go Gold Generation) web-based quizzes on enhancing the comprehension and application of the simple past tense among X-grade students at SMAN 4 Blitar. The research findings indicate that the use of these 3G web-based quizzes led to a notable improvement in students' grammar proficiency.

The study's findings allow us to draw several conclusions. Firstly, the data revealed that the average pre-test score of students was 61.03, which increased to 82.94 in the post-test. This indicates an improvement in students' scores after the intervention. Hypothesis testing further confirmed that the t count (7.758) exceeded the t table value (2.030), with a significance level below 0.05 ($0.000 < 0.05$). This result leads to the rejection of the null hypothesis (H_0) and the acceptance of the alternative hypothesis (H_a), demonstrating a significant improvement in students' grammar scores after being taught using the 3G web-based quiz.

This research supports the use of web-based quizzes as an effective method to improve students' grammar learning outcomes, making grammar lessons more enjoyable and effective. 3G (Go Gold Generation) web-based quizzes contribute practically and usefully to English language teaching and learning, particularly in terms of increasing students' motivation and participation in class. Overall, the results show that the use of 3G (Go Gold Generation) web-based quizzes in learning simple past tense is effective in improving students' grammar skills or learning outcomes. This is in line with the suggestion of some previous researchers such as Yusof & Saadon (2012) who stated that the web-based learning

method is the most effective way to teach grammar because it can improve students' performance.

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