

## The Influence of Starfall Website toward Students Reading Comprehension in Narrative Text

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### ABSTRACT

This research aimed to investigate the effect of the Starfall website on students' reading comprehension of narrative texts. The study was motivated by the low reading performance of ninth-grade students at elementary school, especially in understanding complex and lengthy passages. Starfall, as a digital learning platform, was implemented to provide interactive and engaging reading input for the students. The research employed a quasi-experimental design with pre-test and post-test procedures involving an experimental group that used Starfall and a control group that received conventional instruction. The sample was selected through cluster random sampling, and the instrument used was a multiple-choice test based on Brown's theory, including items on main idea, inference, detail, and vocabulary. The research results showed a significant improvement in the experimental group compared to the control group. Therefore, it can be concluded that the Starfall website had a positive influence on students' reading comprehension in narrative texts and may serve as an effective alternative learning resource.

### Keywords:

Narrative text;  
Quantitative Research;  
Quasi Experimental;  
Reading Comprehension;  
Starfall Website

### INTRODUCTION

Reading is a fundamental skill that supports academic success and personal development. It enables learners to access information, engage with ideas, and understand written discourse. However, reading comprehension, particularly in narrative texts, remains a challenge for many students learning English as a foreign language.

According to Brown (2007), reading comprehension requires readers not only to decode words but also to interpret meaning, make inferences, and integrate prior knowledge with textual information. This skill becomes more complex when students face unfamiliar vocabulary, long passages, and limited background knowledge.

Preliminary observation at elementary school revealed that many ninth-grade students struggle to comprehend narrative texts. Interviews with English teachers

indicated that students often lose motivation, experience boredom, and require an extended amount of time to interpret reading passages. Test results show that 52% of students scored below the minimum mastery criterion, demonstrating difficulties in identifying main ideas, drawing inferences, recognizing vocabulary in context, and extracting supporting details. These findings highlight a gap between expected reading competency and actual student performance.

To address these challenges, technology-enhanced learning platforms are increasingly used to improve reading engagement and comprehension. Mayer's Cognitive Theory of Multimedia Learning (2005) posits that learning becomes more effective when students process information through multimodal channels such as text, sound, and animation. Starfall, an interactive digital learning platform, offers stories, phonics-based exercises, audio narration, and comprehension activities designed to support literacy development. Previous studies suggest that digital platforms can increase learner motivation, improve reading fluency, and provide individualized learning experiences.

Despite numerous studies on digital learning media, research focusing specifically on the use of the Starfall website for teaching narrative text comprehension in Indonesian secondary schools is still limited. This gap indicates a need to examine whether Starfall can be used as an effective instructional tool to enhance students' reading comprehension.

Therefore, this study investigates the influence of the Starfall website on ninth-grade students' reading comprehension of narrative texts at elementary school. The novelty of this research lies in integrating multimedia technology with reading instruction while measuring its effect using a quasi-experimental design.

## **RESEARCH METHOD**

### **Research Design**

This study employed a quantitative research approach using a quasi-experimental design with a pre-test and post-test control group. This design was selected because random assignment of individual participants was not possible, yet the study aimed to examine the causal effect of the independent variable, the Starfall website, on the dependent variable, students' reading comprehension in narrative text.

### **Instruments and Procedures**

The instrument used in this study was a reading comprehension test in the form of

40 multiple-choice items. The test focused on narrative texts and was constructed based on reading comprehension indicators adapted from Brown's (2004) theory, including identifying the main idea, recalling details, making inferences, identifying reference, and understanding vocabulary in context. The instrument was used consistently in the pre-test and post-test to measure students' improvement before and after the treatment.

The research procedure consisted of three stages: pre-test, treatment, and post-test. In the first stage, both the experimental and control groups were given the pre-test to measure their initial reading comprehension level. The pre-test served as a baseline to ensure that both groups had similar reading proficiency before the treatment.

During the treatment stage, the experimental group was taught using the Starfall website, while the control group received conventional instruction without digital media. The treatment lasted four meetings within two weeks and focused on reading narrative texts. Students in the experimental group interacted with digital reading content that included visual support, audio narration, and interactive exercises available on the Starfall platform. Meanwhile, students in the control group practiced reading through printed texts and teacher-led explanation. In the final stage, the post-test was administered to both groups using the same instrument format as the pre-test. The scoring procedure awarded one point for each correct answer and zero for incorrect ones.

The results from both tests were analyzed using descriptive and inferential statistics. Descriptive statistics, including mean, minimum, maximum, and standard deviation, were used to summarize the data. An independent samples t-test was then applied to determine whether there was a statistically significant difference between the post-test scores of both groups.

### **Data Analysis**

The collected data were analyzed using descriptive and inferential statistics. Descriptive statistics, including mean, minimum, maximum scores, and standard deviation, were used to summarize and compare students' performance in both the experimental and control groups.

Before applying inferential analysis, normality and homogeneity tests were conducted to determine whether the data met parametric analysis assumptions. The Kolmogorov-Smirnov test was used to examine normality, while Levene's test was performed to assess the homogeneity of variances.

Since the data met the assumptions, an independent samples t-test was used to compare the post-test mean scores of both groups and determine whether the improvement was statistically significant. The significance level was set at  $p < 0.05$ . Statistical analysis was conducted using SPSS 25.0.

## FINDINGS

The results of the study are based on the comparison of students' reading comprehension scores from the pre-test and post-test in both the experimental and control groups. Descriptive statistical analysis is presented to illustrate the differences in learning achievement before and after the treatment.

**Table 1 Pre-test scores of Experimental and Control Groups**

No.	Group	N	Mean	Minimum	Maximum	Std.Dev
1.	Experimental	32	56	40	75	8.96
2.	Control	32	58	40	75	8.51

Based on Table 1, both groups demonstrated a similar level of reading comprehension prior to treatment, with only a slight difference in mean scores. This indicates that the initial ability of both groups was relatively comparable. After the intervention, the post-test was administered. The results showed an improvement in the experimental group after being taught using the Starfall website.

**Table 2 Post-test scores of Experimental and Control Groups**

No.	Group	N	Mean	Minimum	Maximum	Std.Dev
1.	Experimental	32	70	50	90	10.54
2.	Control	32	57	45	75	8.02

Based on the descriptive data, the experimental group achieved a higher post-test mean score ( $M = 70$ ) compared to the control group ( $M = 57$ ). This indicates that the students taught using the Starfall website demonstrated greater improvement in their reading comprehension than those who received conventional instruction. In addition, the experimental group showed wider score variation, with a maximum score of 90 compared to 75 in the control group, suggesting higher achievement potential when exposed to the digital learning platform. The results also reveal that the experimental group experienced a mean gain of 14 points (from 56 to 70), while the control group showed only a 1-point increase (from 58 to 57), indicating that the improvement in the control group was minimal. The difference in improvement suggests that the treatment had a notable impact on students' learning outcomes. Inferential analysis using the independent sample t-test confirmed that the difference between the two groups was statistically significant, with a

significance value (Sig. 2-tailed) lower than 0.05. This signifies that the use of the Starfall website had a meaningful and positive effect on enhancing students' reading comprehension in narrative texts.

## **DISCUSSION**

The findings of this research demonstrate that the use of the Starfall website significantly improved students' reading comprehension in narrative texts. Students in the experimental group achieved higher post-test mean scores compared to the control group, indicating that Starfall contributed positively to their learning outcomes.

Several features of Starfall may explain this improvement, such as audio narration, visual support, and interactive content that help learners process information more effectively. According to Mayer's Multimedia Learning Theory (2005), learning environments that involve both auditory and visual channels enhance cognitive processing and lead to better comprehension. This aligns with the observed increase in students' performance in the experimental group.

Furthermore, the results support Brown's (2004) principles of reading comprehension, which emphasize the role of guided practice, exposure to meaningful input, and vocabulary reinforcement. The structured learning pathway offered by Starfall enabled students to engage with narrative texts more deeply and confidently.

These findings are consistent with previous research, which suggests that digital learning platforms can enhance student motivation, engagement, and reading comprehension outcomes. Therefore, incorporating interactive media like Starfall can be beneficial for English language teaching, especially when teaching complex text types such as narrative texts.

## **CONCLUSION**

Based on the findings, it can be concluded that the Starfall website had a significant positive effect on students' reading comprehension in narrative texts. Students who learned through the platform demonstrated higher improvement than those taught with conventional methods. Therefore, Starfall can be considered an effective digital learning tool to support reading instruction in junior high school settings.

Teachers are encouraged to integrate digital platforms such as Starfall as supplementary media to enhance students' interest and comprehension in reading activities. Future research may explore its impact across different grade levels, text genres, and longer instructional periods.

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