



## Implementing Liveworksheets in Teaching Reading Comprehension of Sixth-Grade Students in SD Negeri 1 Kerobokan

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### Abstract

*This study aimed to investigate the effectiveness of Liveworksheets as teaching media on students' reading comprehension. This study was in the form of pre-experimental research and used one group pre-test post-test as the design. The population and sample were involved one group contain 35 students. Data collection was conducted using reading comprehension test which was formed as multiple-choice questions. The data was analysed with descriptive and inferential statistics analysis. The result of this study shows the implementation of Liveworksheets had a significant effect on students' reading comprehension. It can be seen on the paired sample t-test which got  $p < 0.05$ . Moreover, the effect size got 1.388 which categorized into large size. It can be concluded that the implementation of Liveworksheets had a significant effect on students' reading comprehension.*

**Keywords:** Teaching media, Liveworksheets, Reading Comprehension

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### 1. Introduction

Language is a dynamic tool enabling individuals to communicate thoughts, emotions, and ideas across various social contexts. Vygotsky (1978) highlights language as crucial for cognitive development, facilitating social interaction, self-regulation, and internalization of thought processes. In Indonesia's globalizing context, English is taught as a foreign language to equip students with international communication skills vital for academic and economic competitiveness. While the four basic language skills—speaking, listening, reading, and writing—are ideally integrated in instruction, the Indonesian curriculum emphasizes reading, closely linked to other language competencies (Kompas, 2023).

Reading literacy remains a challenge for Indonesian elementary students, with OECD's PISA (2022) reporting low proficiency (Ningsih et al., 2021). Literacy, defined broadly to include reading, writing, comprehension, and text construction (Rosmalah et al., 2021), forms the foundation for reading comprehension—the active process of interpreting texts by connecting new

information to prior knowledge (Islam & Puspitaningsari, 2024; MacDonald et al., 2009). Strong literacy skills are thus essential for effective reading comprehension (Kirby, 2007).

Incorporating digital media in classrooms holds promise to enhance engagement and reduce learning stress (Meidasari, 2017). Observations at SD Negeri 1 Kerobokan showed limited use of technology in teaching reading comprehension. Liveworksheets, an interactive digital platform offering instant feedback and multimedia activities, have demonstrated potential to foster literacy through active learning (Rusdan & Mulya, 2023) and increase student motivation in language learning (Ramadhani & Wandini, 2024). Despite pandemic-era digital media adoption (Suganda, 2022), empirical research on Liveworksheets' impact on Indonesian elementary students remains limited, warranting further investigation (Amalyasari et al., 2022).

Literacy encompasses broad communicative competencies beyond reading and writing, including information, media, technology, and visual literacy (UNESCO, 2003; Clay, 2001). Reading comprehension is an interactive, multi-component process involving decoding, vocabulary, syntax, discourse knowledge, and reader readiness (Nuttall, 1996; Clark & Silberstein, 2008; Donald et al., 1987). Effective assessment includes literal, inferential, critical, and vocabulary comprehension skills (Sari Dewi et al., 2020). Literacy and comprehension share an essential correlation, especially in EFL learning, where literacy underpins fluency and vocabulary mastery (Azimah & Sujannah, 2024; Ningsih et al., 2021).

Teaching media motivate and facilitate comprehension by making learning accessible and interactive (Rahayu et al., 2021; Elisa et al., 2023). Liveworksheets integrate gamified and multimedia elements promoting engagement, personalized practice, and immediate feedback (Rusdan & Mulya, 2023; Amlyasari et al., 2022), though challenges like unequal technology access and potential over-reliance exist (Rusdan & Mulya, 2023). Effective implementation involves selecting suitable reading materials, introducing students to the tool, and fostering motivation (Khoirunnisa et al., 2025).

Several studies support Liveworksheets and similar interactive tools as effective for enhancing learning outcomes. Maysara et al. (2023) found students using enhanced worksheets outperformed peers on scientific topics. Rusdan and Mulya (2023) reported significant cognitive gains using Live Worksheet-based electronic student worksheets compared to controls. Yusro et al. (2023) and Triasari (2022) validated and confirmed the practicality of Liveworksheet-based materials in science learning. Hernanto et al. (2023) qualitatively affirmed student motivation and perceived effectiveness of Liveworksheets as an online assessment tool. Collectively, these findings endorse Liveworksheets as promising educational technology that supports engagement, cognitive development, and diversified instructional strategies.

## **2. Method**

This study employs a quantitative research approach, defined by Aliaga and Gunderson (2002) as the investigation of social issues through the collection and statistical analysis of numerical data. It utilizes a pre-experimental one-group pre-test and post-test design (Sugiyono, 2010) to measure the effect of Liveworksheets on sixth-grade students' reading comprehension at SD Negeri 1 Kerobokan. The design follows the sequence O1 (pre-test), X (treatment), and O2 (post-test) to assess changes before and after the intervention. The study involved all 35 sixth-grade students, selected purposively through total sampling (Creswell, 2012), including 18 males and 17 females, chosen due to their relevance to the research objectives and challenges in English reading comprehension.

Data were collected using pre-test and post-test instruments consisting of 20 multiple-choice questions on the Simple Future Tense, with randomized question order to reduce bias. The treatment

employed Liveworksheets as an interactive teaching media featuring exercises like drag-and-drop and multiple-choice tasks aligned with identifying main ideas, verifying statements, and locating information, guided by lesson plans based on the sixth-grade syllabus and the Merdeka Curriculum. The research procedure involved obtaining permission, validating instruments with experts, administering the pre-test, conducting six treatment sessions, and concluding with a post-test. Data analysis was carried out using descriptive and inferential statistics with SPSS software. The hypothesis of the study are as follows.

- a)  $H_0$ : There is no significant difference between the pre-test and post-test scores of sixth-grade students' reading comprehension.
- b)  $H_a$ : There is a significant difference between the pre-test and post-test scores of sixth-grade students' reading comprehension.

### 3. Findings

The analysis of students' reading comprehension scores revealed a significant positive effect following the use of Liveworksheets as a digital teaching media. The mean score increased from 69.86 in the pre-test to 84.14 in the post-test, indicating a considerable gain in comprehension ability. Similar trends were observed in other descriptive statistics: the median rose from 70.00 to 85.00, and the mode shifted from 65 to 90, suggesting that the majority of students achieved higher scores after the intervention.

Variability in scores also changed after the treatment, with the variance increasing from 90.42 to 121.30 and the range extending slightly from 35 (55 to 90) to 40 (60 to 100). These changes indicate a broader distribution of student outcomes, reflecting individual differences in response to the Liveworksheets. Notably, both the minimum and maximum scores improved, with the lowest score rising from 55 to 60 and the highest achieving a perfect 100 in the post-test, suggesting the intervention supported learners across different proficiency levels.

A Shapiro-Wilk normality test confirmed that the pre-test and post-test data were normally distributed, with significance values above 0.05. Consequently, a paired sample t-test was conducted to evaluate whether the observed gains in reading comprehension were statistically significant. The test yielded a t-value of -13.631 ( $df = 34$ ) with a p-value of 0.000, which is well below the threshold of 0.05. This result indicates a significant effect of Liveworksheets on students' reading comprehension, leading to rejection of the null hypothesis.

To quantify the magnitude of this effect, Cohen's d was calculated and resulted in a value of 1.388, which signifies a strong practical impact of the intervention. This large effect size suggests that the use of Liveworksheets substantially enhanced reading comprehension in the sample group, confirming the effectiveness of this interactive digital tool as a teaching medium.

Table 1. Findings

	Pre-Test	Post-Test
Mean	69.85	84.14
Median	70	85
Mode	65	90
Range	35	40
Variance	90.42	121.30
Std. Deviation	9.50	11.01
Maximum	90	100
Minimum	55	60
Normality (Shapiro-wilk)	0.122	0.89
Paired sample t-test	.000	
Effect size	1.388	

#### **4. Discussions**

This study aimed to examine the significant effect of using Liveworksheets, an interactive digital teaching medium, on the reading comprehension of sixth-grade students at SD Negeri 1 Kerobokan. Using a pre-experimental one-group pre-test and post-test design, the research measured students' comprehension before and after the intervention. The results showed a statistically significant improvement, with the mean score increasing from 69.85 to 84.14 and an effect size (Cohen's  $d = 1.388$ ) indicating strong practical significance. These findings demonstrate that Liveworksheets has a positive impact on enhancing students' reading comprehension skills.

A key factor contributing to this significant effect is the interactive and multimodal nature of Liveworksheets. Unlike traditional worksheets, Liveworksheets provide immediate feedback that enables students to adjust their understanding in real time, supporting deeper cognitive engagement aligned with constructivist learning theories. The incorporation of multimedia elements such as audio, images, and drag-and-drop exercises caters to diverse learning styles, especially benefiting younger learners who might struggle with abstract reading tasks. The variation in post-test scores suggests differences in students' prior technological literacy, motivation, and learning pace also influenced the degree of benefit from the tool.

These results align with existing research supporting the effectiveness of interactive digital media in education. Studies by Maysara et al. (2023) and Rusdan and Mulya (2023) found that Liveworksheets enhanced conceptual understanding and cognitive learning outcomes across various educational levels. Additionally, motivational benefits noted by Hernanto et al. (2023) and creativity and participation improvements reported by Ratnawati et al. (2023) reinforce the value of Liveworksheets in fostering engagement and active learning. The study also supports theoretical perspectives by Nuttall (1996) and Clark & Silberstein (2008), positioning reading comprehension as an interactive process strengthened by responsive digital tools.

Despite the positive outcomes, challenges such as technological access and potential over-reliance on digital tools were observed, echoing prior concerns raised by Rusdan & Mulya (2023). Moreover, the pre-experimental design and limited sample size from a single school constrain the generalizability of the findings. The study did not examine long-term retention of skills, and differences in student familiarity with technology might have influenced individual results. These limitations highlight the need for cautious interpretation and further investigation.

In conclusion, integrating Liveworksheets into reading comprehension instruction demonstrated a significant positive effect on elementary students' learning experiences by enhancing comprehension, motivation, and engagement. Educators are encouraged to use the interactive features of Liveworksheets to promote active participation and timely feedback. Future research should utilize more rigorous experimental designs, expand sample diversity, and explore long-term outcomes and different interactive activities. This study contributes to the growing evidence supporting the integration of technology-enhanced teaching media in elementary education.

#### **5. Conclusion and Suggestion**

Reading comprehension is a crucial skill for sixth-grade students, enabling effective understanding and engagement with texts. This study investigated the effect of Liveworksheets, an

interactive digital learning media, on the reading comprehension of 35 students at SD Negeri 1 Kerobokan using a pre-experimental one-group pre-test and post-test design. The data, collected via reading tests before and after the intervention and analyzed with SPSS-26, revealed a significant positive effect on students' reading comprehension, supported by a large effect size. These findings demonstrate that Liveworksheets is an effective tool for enhancing reading comprehension in elementary education.

The study concludes that Liveworksheets significantly impacts students' reading comprehension by providing engaging features such as immediate feedback, multimedia integration, and varied exercises. These interactive elements support students' ability to connect prior knowledge to new information and process texts more effectively. The results emphasize the potential of technology-based learning tools to make reading instruction more engaging and accessible, fostering better comprehension skills among young learners.

Based on these findings, several recommendations are given: English teachers are encouraged to incorporate Liveworksheets into reading instruction, adapting it to their students' needs and combining it with effective teaching strategies. Students should actively engage with the digital media and collaborate with peers and teachers to deepen understanding. Policymakers should support the integration of digital tools by providing adequate infrastructure and teacher training. Finally, future research is suggested to explore Liveworksheets' effects on other language skills, include control groups or varied education levels for comparison, and assess long-term impacts through longitudinal studies.

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