



The Implementation of Liveworksheets in Teaching Basic English Literacy

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Abstract

This research aimed to investigate the implementation of Liveworksheets in teaching basic English literacy among 7th-grade students. This study used a quasi-experimental research design with a post-test only for both the control group and the experimental group. The population was the seventh-grade students. Two classes were selected as samples, with each class containing 36 and 35 students. IBM Statistics SPSS 26 was used for the analysis of the collected data. The results of the data analysis show that students in the experimental group achieved higher mean scores ($M = 81.25$) compared to the control group ($M = 69.57$). In addition, the independent sample t-test results indicate a significant difference between the two groups. Moreover, the results of Cohen's d effect size with a score of 1.303 indicate a large effect of the influence of Liveworksheets on students' basic English literacy. The results of this experiment indicate that Liveworksheets affect students' basic English literacy skills.

Keywords: Digital Media; Literacy; Basic English; Liveworksheets

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1. Introduction

Literacy is a fundamental and transformative skill that extends far beyond the mere ability to read and write. It empowers students to navigate and engage effectively with an increasingly complex world. As Fitria (2023) highlights, literacy broadens students' horizons and enables them to apply their academic knowledge in real life contexts. Bozsik (2015) further emphasizes literacy as the foundational skill necessary for success not only in education but also within society, enabling individuals to decode and interpret diverse forms of communication, from spoken language and printed texts to broadcast and digital media. Literacy includes cognitive, social, linguistic, and psychological dimensions that equip students to critically identify issues and develop problem-solving strategies in everyday situations (Padmadewi et al., 2020). Wallendorf (2001) underscores that mastering literacy skills enables students to internalize learning materials, engage deeply with academic concepts, and cultivate critical thinking, analytical ability, and problem-solving prowess. Moreover, literacy serves as an essential bridge that connects students to the wider world, fostering discovery, new knowledge, and multiple perspectives (Padmadewi et al., 2018). Cultivating a vibrant culture of literacy enhances educational quality by unlocking empowerment potential (Keefe and Copeland, 2011). Teachers hold a pivotal role in



nurturing literacy development by creating environments where literacy is prioritized, thus enabling students to become proactive, lifelong learners (Kirsten, 2019).

Literacy skills in Indonesia face considerable challenges, as reflected in international assessments. According to the World Data Atlas, the average use of written information in Indonesia remains significantly low. The Program for International Student Assessment (PISA) 2018 survey, which evaluates the reading, mathematics, and science abilities of 15-year-olds, ranked Indonesia's reading proficiency among the lowest, placing 74th out of 79 participating countries. Furthermore, the 2017 World's Most Literate Nations report by Central Connecticut State University ranked Indonesia 60th among 61 surveyed countries for literacy competence. More recently, PISA 2022 data revealed that Indonesia's literacy score dropped further to 359 points, the lowest score recorded to date and a decline from the 371 points scored in both 2018 and 2000. This decline is largely attributed to the impact of the COVID-19 pandemic, which forced school closures as a preventive measure against the virus, severely disrupting learning (Mahayani et al., 2025; Susrini et al., 2022). Consequently, Indonesia's 2022 literacy score represents its lowest performance since it began participating in PISA assessments.

Padmadewi and Artini (2018) identify several key factors contributing to the low literacy rate among Indonesian students, including a lack of consistent reading habits and the absence of structured literacy programs within schools. Addressing this issue requires systematic and coordinated efforts involving schools, teachers, and parents to cultivate a supportive and enriching literacy environment (Padmadewi, Artini, Nitiasih, et al., 2018). Given the critical role teachers play in fostering students' literacy development, they should proactively introduce and utilize diverse learning tools designed to enhance literacy-based learning experiences (Suganda, 2022). Through such collaborative and intentional approaches, it is possible to build a stronger foundation for literacy growth among students.

Digital technology has become an integral part of education. Digital technology serves as an important tool in the teaching and learning process and an innovation that can improve the overall performance of the educational field. The teacher realises that technology such as computers and the Internet can significantly enhance learning by making it more engaging and interactive (Dewi et al., 2024). The teacher also has a positive view of digital literacy development and good experiences with digital technology (Paramahita et al., 2023). Students can be motivated, supported through learning innovations, fully engaged in learning, and even develop skills to be ready for future work by utilizing digital technology (Taylor et al., 2021). Besides, digital media is one of the sources of learning that can be used to implement basic literacy in learning (Fitria, 2023). The use of the internet enables the integration of digital media, such as learning videos, into educational activities and enhances students' literacy skills (Devi & Rusdinal, 2023). Literacy can be enhanced through digital technology, where teachers and students are already familiar with digital literacy through the use of smartphones, computers, laptops, the internet, applications, etc.

Liveworksheets is a digital-based software that can be used to create interactive online exercises with various engaging features. Liveworksheets is a free, web-based educational platform designed to enhance the teaching and learning process with features that cater to different learning styles, including visual, auditory, and kinesthetic, making it a versatile tool for educators and students alike (Sumanik et al., 2023). Liveworksheets allows teachers to transform traditional printable worksheets (doc, pdf, jpg) into interactive online exercises. With its engaging tools, this software can improve student motivation and interest in learning, improve student learning outcomes, and facilitate self-directed and collaborative learning (Yuliana et al., 2023). According to research conducted by Yusuf & Ali (2022) found that students' perception of using Liveworksheet as Self-directed learning is that Liveworksheets is easy, simple, and flexible to access; it can be accessed anytime and anywhere, students learn much new vocabulary that can be hard and visualised, and they become more independent in their learning process. In addition, the learning outcomes of students who used interactive student Liveworksheets



based on discovery learning were better compared to students who did not use Liveworksheets (Maysara et al., 2023). Furthermore, Febryanti & Rusmini (2022) found that Liveworksheets can increase students' critical thinking abilities and their cognitive levels.

Although several studies have been conducted on using Liveworksheets and have positively impacted the learning process, more specific or in-depth research is still needed to discover the impact of implementation on a certain level and in different fields of learning. Previous studies have not examined the implementation of digital technology in the form of Liveworksheets in teaching basic English literacy. On the other hand, the English teacher mentioned that the teacher did not actively encourage Liveworksheets in the learning activities. The teacher also stated that there had never been research related to this field within the school. Additionally, students still struggle with literacy, including literacy in English. Therefore, the researcher was eager to investigate the implementation of Liveworksheets in teaching basic English literacy and whether or not it makes any significant difference among 7th-grade students.

2. Method

This study employed a quasi-experimental post-test only control group design to investigate the effectiveness of Liveworksheets in teaching basic English literacy. The sample consisted of 71 seventh-grade students from two classes at one private school in Bali, selected using a cluster random sampling technique. Using spintthewheel.io, the sample was randomly divided into experimental and control groups. Prior to the intervention, normality and homogeneity tests were conducted to confirm that the data distribution within each group was normal and homogeneous. The experimental group received instruction incorporating Liveworksheets as the learning medium, while the control group used conventional materials, specifically the English for Nusantara Handbook. The intervention spanned six sessions, followed by a post-test on the seventh session.

Two types of instruments were employed: instructional instruments consisting of lesson plans for both groups and the Liveworksheets treatment for the experimental group, and data collection instruments comprising a post-test with 20 questions, including 8 multiple-choice, 4 true-false, 4 short essay, and 4 sentence rearrangement items. These instruments were validated through expert judgment and analyzed using the Gregory formula and Intraclass Correlation Coefficient (ICC), confirming their validity and reliability.

To compare group performance, both descriptive (mean, median, mode, range, variance, standard deviation) and inferential statistics were used. An independent samples t-test, with a significance level of Sig (2-tailed) ≤ 0.05 , determined whether differences between groups were statistically significant. Following the t-test results, an effect size analysis using Cohen's d was conducted to measure the magnitude of Liveworksheets' impact on basic English literacy instruction.

3. Findings

After conducting the treatment, the post-test score was collected. Table 1 presents the descriptive and inferential statistical analysis of the post-test score. The data obtained analyzed using IBM SPSS Statistic 26.

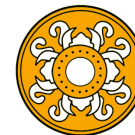


Table 1. Finding Descriptive and Inferential Statistic analysis

Statistic	Control Group	Experimental Group
N	35	36
Mean	69.5714	81.5278
Median	70.0000	80.0000
Mode	75.00	75.00
Range	40.00	35.00
Variance	94.664	74.028
Standard Deviation	9.72954	8.60394
Normality (Kolmogorov-Smirnov)	0.080	0.085
Homogeneity (Levene Statistic)		0.434
Independent sample t-test (Sig. 2-tailed)		0.000
Effect Size		1.303

From the table 1. it can be seen the summarize results of the findings. The mean score of the experimental group was 81.52, while the control was 69.57. The higher mean score in the experimental group suggests that the intervention implemented has a positive impact. The median of the control group is 70.00 while the experimental group is 80.00. Both groups shared the same mode with the score of 75.00 which indicates this score was the most common score among students. The range of the control group were more dispersed with the score of 40.00 compared to the experimental group with the score of 35.00. In addition, the variance of the control group is 94.668 while the experimental group is 74.028. It means that the control group was more widely distributed around mean, indicating greater variability in performance. Moreover, the standard deviation of the control group was 9.72954 and the experimental group was 8.60394. This indicates that the scores in the control were more widely spread around the mean compared to the experimental group.

Before the hypothesis testing using a correlated t-test analysis, normality and homogeneity tests were conducted first. The normality test was conducted using the Kolmogorov-Smirnov formula. The control group's value was 0.080 while experimental group's value of 0.085. The value was higher than the standard sig. level of 0.05 (5%), suggesting that the data was normally distributed. Next, a variance homogeneity test was conducted using Levene Statistic, with the same standard significant level of 0.05 (5%). The result of homogeneity test showed a value of 0.434. Thus, can be concluded that the data was homogeneous and no significant difference in variance between two groups. After confirming that the test was normal and homogeneous, the hypothesis testing using a correlated t-test analysis was conducted.

In hypothesis testing, the decision to accept or reject the null hypothesis depends on the significance level obtained from the t-test. If the p-value is greater than the standard alpha level of 0.05 ($p > 0.05$), the null hypothesis is accepted, indicating no significant difference between the groups. On the other hand, if the p-value is less than 0.05 ($p < 0.05$), the null hypothesis is rejected, implying a significant difference exists between the groups. Based on the results of the independent sample t-test, the significance value Sig. (2-tailed) was 0.000, which is below the 0.05 threshold. Therefore, the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_a) is accepted. In conclusion, it could be assumed that there is a significant difference in the students' basic English literacy of grade seven who are taught using Liveworksheets compared to those taught using conventional learning media. Moreover, the calculation of effect size score was 1.303. Based on the interpretation of Cohen's d, the obtained effect size was classified as large. Therefore, the influence of Liveworksheets on students' basic English literacy achievement is considered to have a large effect.



4. Discussions

Based on the descriptive and inferential statistical analysis of the post-test scores, the results revealed a notable difference between the experimental and control groups. The experimental group, which utilized Liveworksheets as a teaching medium, achieved a higher mean score of 81.52 compared to the control group's mean score of 69.57. This substantial difference indicates that the implementation of Liveworksheets significantly enhances students' basic English literacy skills. Further supporting this conclusion, hypothesis testing yielded a significance value (Sig. 2-tailed) of 0.000, well below the conventional threshold of 0.05. This led to the rejection of the null hypothesis (H_0) and acceptance of the alternative hypothesis (H_a), confirming a statistically significant effect of Liveworksheets on literacy outcomes. Additionally, the calculation of Cohen's d effect size produced a result of 1.303, indicating a large effect and underscoring the practical importance of the intervention.

The influential role of digital media in education has been well-documented. Munir (2012) describes digital media as a combination of various computerized formats capable of transmission over the internet or networks, which introduces interactive and engaging tools into the learning process. Suganda (2022) further highlights that digital media fosters flexibility for both teachers and learners, positively impacting literacy skills by creating dynamic learning environments. This study corroborates these insights by demonstrating that Liveworksheets, as an innovative digital tool, effectively facilitates basic English literacy instruction.

The findings align with existing literature on educational technology and literacy. Jannah et al. (2024), for example, reported that Liveworksheets-based electronic student worksheets (E-LKPD) significantly improved science literacy among middle school learners. While focusing on different subjects, this shared emphasis on literacy underscores Liveworksheets' adaptability and effectiveness across disciplines. Similarly, Zamzam et al. (2023) observed that Liveworksheets reliably captures students' interest and enhances engagement, while Mitra and Wahyudin (2024) found it boosts learning motivation. These studies resonate with the current research, where the experimental group's higher mean scores suggest that Liveworksheets' interactive features foster greater student motivation and active participation in literacy activities.

Moreover, the use of multimedia components within Liveworksheets complements findings by Rhosyida et al. (2021), who noted that such interactivity supports student flexibility, engagement, and the development of higher-order cognitive skills like critical thinking and comprehension. This study adds to the evidence that multimedia-enabled learning not only sustains student interest but also improves their reading, writing, and communication abilities—key components of basic English literacy. Rusdan and Mulya (2023) similarly reported enhanced learning outcomes attributed to Liveworksheets, a conclusion echoed by this study's observation that students using the platform attained higher average scores than their counterparts relying on conventional media.

Overall, the current study underscores the effectiveness of Liveworksheets as an engaging and impactful digital learning medium for improving basic English literacy skills in grade 7 students. The significant gains reflected in post-test scores demonstrate how interactive digital tools can enrich traditional education methods and offer promising alternatives to conventional teaching materials. However, it is important to note contextual factors such as reliable internet connectivity, access to Google accounts, and clear instructional guidance from teachers, which are critical for successful implementation. Future research could extend these findings by exploring the long-term effects of Liveworksheets on literacy development and by testing its application in diverse educational settings and subjects.

5. Conclusion and Suggestions

This research has empirically demonstrated that the implementation of Liveworksheets significantly enhances students' basic English literacy skills compared to traditional worksheet-based learning. The evidence is clearly reflected in the post-test results and supported by rigorous hypothesis testing, as well as by alignment with previous studies. The experimental group achieved a mean post-



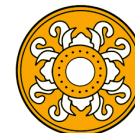
test score of 81.25, markedly higher than the control group's mean score of 69.57. Hypothesis testing further confirmed this difference with a significance value (Sig. 2-tailed) of 0.000, which is well below the 0.05 threshold, leading to the rejection of the null hypothesis and acceptance of the alternative hypothesis. Additionally, Cohen's d effect size indicated a strong and meaningful impact of Liveworksheets on students' literacy development.

The platform's interactive and engaging features play a crucial role in boosting students' motivation and active participation, which in turn contributes to improved learning outcomes. These findings underscore the potential benefits digital media can provide in the educational context by enabling teachers to foster a more stimulating and enjoyable learning environment. Consequently, students become more engaged and motivated throughout the learning process. This study offers valuable insights for educators and schools aiming to enhance literacy skills by integrating innovative teaching tools.

However, the study's scope was limited to a specific group of seventh-grade students within a particular educational setting, which may restrict the generalizability of the findings to a wider population. Furthermore, the positive results depend on students' familiarity and comfort with digital learning platforms. Therefore, future research should consider applying this intervention to diverse groups, educational levels, and contexts. Additionally, subsequent studies could explore the effectiveness of Liveworksheets across various subjects to further validate its utility as a versatile digital learning resource.

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