Silent Reading on Medium Apps to Improve Students' Reading Comprehension Skill

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Abstract. This study aims to analyze the effectiveness of silent reading through the use of the Medium App in improving students' reading comprehension skills. Reading comprehension is an essential language skill that requires learners to understand, interpret, and critically analyze written texts. With the advancement of educational technology, digital applications supported by artificial intelligence—such as the Medium App—offer adaptive features that enable a more personalized and interactive reading experience. Through the silent reading method, students are given the opportunity to read at their own pace without the constraints of oral articulation, allowing for greater focus and deeper processing of meaning. Previous research indicates that silent reading assisted by digital platforms can enhance reading fluency, enrich vocabulary, and improve learning motivation. However, the integration of both approaches has rarely been examined comprehensively. This study employs a literature review approach to explore how the use of the Medium App in silent reading activities can significantly influence students' reading comprehension. The findings highlight that the combination of silent reading strategies and adaptive technology has the potential to serve as an effective instructional method for improving literacy, particularly among intermediate English language learners.

Keywords: Digital Literacy; Educational Technology; Medium App; Reading Comprehension; Silent Reading.

1. INTRODUCTION

Reading comprehension is the ability to understand, interpret, and analyze written text. Readers interpret complex information from a sequence of words or sentences to construct a complete understanding. Additionally, the top-down theory suggests that meaning is derived not only from sensory input but also from the reader's prior knowledge, expectations, and experiences (Korinth & Fiebach, 2018). It involves not only recognizing words but also grasping their meanings, identifying key ideas, making inferences, and connecting new information to prior knowledge. Critical factors in reading instruction, acknowledging its complexity, include the diversity and richness of vocabulary, the development of a structured framework for teaching comprehension strategies, fostering student motivation, and promoting reading as an engaging activity. Each of these components is essential, as they provide a foundation for effectively facilitating the reading process (Insuasty Cárdenas, 2020).

Reading strategies are regarded as crucial for students' reading comprehension, as they equip them with the necessary skills to effectively manage their reading processes (Banditvilai, 2020). Silent reading method emerging as one of the most common practices in educational

settings. English is considered as a foreign language in Indonesia and taught formally from preschool up to secondary school.

Recently, international literacy organizations and PISA have advised stakeholders to prioritize the assessment of silent reading fluency and the development of instructional strategies aimed at enhancing students' reading fluency from the elementary school level (Gunnerud, Foldnes, & Melby-Lervåg, 2022). Understanding the impact of silent reading on reading comprehension is essential for improving reading instruction and supporting students' literacy development. Silent reading refers to an individual's ability to read a text silently while effectively understanding the text. It is a crucial skill that enhances reading efficiency. Reading fluency play a vital role in overall reading proficiency (Boardman, 2020). Silent reading can enhance comprehension by allowing students to process text at their own pace, others indicate that oral or guided reading may be more effective, particularly for struggling readers or second-language learners. Additionally, comprehension is influenced by various factors such as reading motivation, cognitive engagement, and prior knowledge, which interact differently across learners and reading contexts (Alfiani, Anggia, Harpain, & Dharmawan, 2024).

Despite its prevalence in educational settings, silent reading has not been sufficiently explored in relation to these factors, leaving gaps in understanding its overall effectiveness. Addressing these gaps is crucial to developing evidence-based reading strategies that cater to diverse learning needs and optimize reading instruction (van Putten & Blom, 2022). By investigating the impact of silent reading in different educational contexts and among various learner demographics, this study aims to provide valuable insights that can inform teaching practices and enhance students' reading comprehension skills.

In recent years, digital applications have increasingly played a significant role in improving students' reading comprehension skills. With the growing availability of technology in education, educators have sought innovative ways to enhance learning experiences through multimedia and interactive platforms. By utilizing digital reading applications, teachers can customize lessons to meet each student's unique needs, monitor their development, and enhance their interaction with reading materials. Research has demonstrated that smart app creators contribute to both increased reading proficiency and greater student enthusiasm for learning in classroom environments (Wiharmansi, Sari, & Yukamana, 2023). These tools promote active engagement through digital

literacy techniques, helping students enhance their reading comprehension while also strengthening their critical thinking and analytical abilities (Budnik & Khyzhniak, 2023).

Medium apps are digital tools that enhance students' reading comprehension through interactive features like adjustable text complexity, annotations, quizzes, and multimedia elements. Using the Medium app in reading learning using the silent reading method can personalize the reading experience using AI and adaptive learning to match content with students' proficiency levels, helping struggling readers while challenging advanced ones Silent reading, supported by adaptive medium apps with interactive features like stretch text, enhances students' comprehension and vocabulary by allowing independent, uninterrupted engagement with reading material (Mohammed, EL Nagar, & Sidky, 2020). Silent reading, enhanced by adaptive medium apps, enables personalized and uninterrupted comprehension by allowing students to engage deeply with text through interactive and supportive digital tools (Loughland & Alonzo, 2019). By exposing students to diverse genres and perspectives, these apps foster a love for reading and support overall literacy development. Moreover, mobile apps provide a stress-free and engaging learning environment, helping language learners overcome challenges in reading fluency and comprehension (Kalyan Chakravarthy & Sunitha, 2023).

According to (Schimmel & Ness, 2017) silent reading offers several advantages in enhancing students' reading comprehension. It enables learners to concentrate more on understanding the content without being distracted by the demands of speaking or pronouncing words. As students become more proficient readers, silent reading proves to be a quicker and more effective approach for grasping the meaning of texts. Their research also indicates that students tend to understand narrative texts better when reading silently, likely because they are more familiar with story formats. Overall, silent reading not only improves comprehension but also allows students to read more efficiently, making it a valuable method in educational settings.

According to (Asmara, Muhammad, & Almubarokah, 2022) identifies several prior investigations that demonstrate the efficacy of digital tools, such as Quizizz, in enhancing students' reading comprehension through interactive and engaging features. These studies indicate that quiz-based applications significantly boost student motivation and performance, particularly with descriptive and narrative texts.

Although silent reading and digital learning tools have been studied individually, little research has focused on how their combination affects students' reading comprehension. Silent reading helps improve focus and understanding, while digital apps can boost motivation and learning. However, many digital tools emphasize interactive tasks rather than encouraging quiet, independent reading. As a result, there is limited research on how using medium apps specifically for silent reading can support comprehension. This study aims to fill that gap by examining how silent reading through medium apps can improve students' reading comprehension skills.

2. LITERATURE REVIEW

Reading Comprehension

Reading comprehension is widely recognized as a multifaceted cognitive process that necessitates the integration of various mental functions, including decoding, vocabulary knowledge, prior knowledge, inference-making, and comprehension monitoring. A foundational perspective is presented by Navarrete (2019) who delineates several core theories that elucidate the mechanisms underlying reading comprehension. These include Schema Theory, which underscores the significance of background knowledge in text interpretation, and interactive models that characterize comprehension as a dynamic interplay between bottom-up (text-based) and top-down (knowledge-driven) processes. Navarrete emphasizes that effective comprehension relies not only on the reader and the text but also on the ability to employ appropriate strategies during reading to construct meaning from both singular and multiple texts (Navarrete, 2019).

Silent Reading as a Method

Silent reading, as a strategy for language acquisition, closely aligns with Vygotsky's Constructivist Learning Theory, which highlights the importance of internal mental processes, social context, and active participation in knowledge construction. Vygotsky posits that learning is most effective when learners are provided with opportunities to internalize knowledge through self-directed exploration and reflection. Silent reading supports this process by enabling students to independently engage with texts, process meaning at their own pace, and utilize prior knowledge to comprehend new information. Supporting this theoretical view, Chen (2024) highlights the effectiveness of applying constructivist principles to English reading instruction in senior high schools. The study found that incorporating strategies such as contextual learning, inquiry-based

reading, and student autonomy significantly enhanced learners' comprehension skills and motivation.

Digital apps as a learning media

Digital applications as educational tools are anchored in various contemporary pedagogical theories that emphasize the significance of active, personalized, and socially interactive learning. One notable model is the Cognitive Affective Social Theory of Learning in Digital Environments (CASTLE), which asserts that learning is most effective when digital platforms facilitate not only cognitive processes but also emotional and social engagement. (Schneider, Beege, Nebel, Schnaubert, & Rey, 2021) indicates that learners benefit from applications that integrate features such as real time feedback, social interaction, and motivational elements, all of which promote deeper engagement and foster self-regulated learning.

3. METHOD AND PROCEDURES

This research took place in the even semester of the 2025/2026 academic year. This research will be carried out in SMAN 10 KOTA TANGERANG SELATAN in Jl. Tegal Rotan Raya, Sawah baru, Kec. Ciputat, South Tangerang, Banten 15413. This research adopted a quantitative methodology to examine how the use of the Medium app during silent reading influences students' reading comprehension outcomes. The population of this study consisted of grade 10 students at SMAN 10 TANGERANG SELATAN during the academic year 2025/2026. From the overall population, one class was chosen as the sample through purposive sampling.

4. FINDINGS AND INTERPRETATIONS

Data Analysis

Test of Normality

Table 1. Tests of Normality.

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre Test	.174	35	.009	.950	35	.116
Post Test	.117	35	.200[*]	.958	35	.203

a.Lilliefors Significance Correction

In this study, the normality test was conducted using two methods available in SPSS: The Kolmogorov–Smirnov test and the Shapiro–Wilk test. The Shapiro–Wilk test was prioritized since it provides more accurate results for smaller sample sizes ($n < 50$), which is the case in this research with 35 students. The test results, presented in Table 4.6, show that the significance value (Sig.) for the pre-test was 0.116, and the significance value for the post-test was 0.203. Both values are greater than 0.05, which means that the data for both tests are normally distributed.

Paired Sample Test

Table 2. Paired Sample Statistics.

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre Test	66.71	35	6.309	1.066
	Post Test	84.03	35	6.085	1.029

The result of Paired Sample Statistics shows that mean score of the Pre-test was 66.71, while the mean score of the Post-test increased to 84.03. this significant increase of 17.32 points indicates that students' reading ability improved after being taught through the silent reading method using medium apps. The result also suggest that the learning process conducted through the medium platform was effective in helping students enhance their comprehension skills.

Paired Samples Correlation

Table 3. Paired Samples Correlations.

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Pre Test & Post Test	35	.339	.046

The correlation analysis between pre-test and post-test results showed a correlation coefficient of 0.339 with a significance level of 0.046. since the significance value is less than 0.05, it can be interpreted that there is a moderate positive relationship between the two sets of scores. This means that students who achieved higher results in the pre-test tended to maintain good performance in the post-test as well. It also indicates that improvement was consistent across most students, and the use of silent reading on medium apps effectively enhanced students' engagement and comprehension throughout the learning process.

Paired Sample Test

Table 4. Paired Samples Test.

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	Pre Test - Post Test	-17.314	7.128	1.205	-19.763	-14.866	-14.370	34	<,001

Based on the results presented in Table 4.9, the mean difference between the pre-test and post-test was 17.317, with a standard deviation of 7.128 and a standard error mean of 1.205. The t-test value produced a significance (2-tailed) value below 0.05, confirming that there is a statistically significant difference between the two sets of scores. The confidence interval for the difference, which ranges from 14.866 to 19.763, further supports this conclusion, showing that the true mean difference is unlikely to be zero.

Interpretation

The findings from the statistical analysis provide strong evidence that the silent reading method using the Medium application significantly improved the reading comprehension of tenth-grade students at SMAN 10 South Tangerang. The consistent increase in students' scores, the normal distribution of the data, and the statistically significant results from the paired sample t-test all indicate that the treatment had a genuine and measurable impact on student learning outcomes.

The mean pre-test score of 66.71 reflects that before the treatment, most students' reading comprehension skills were at a moderate level. Many students were able to understand surface-level information but often struggled with inferential comprehension and contextual interpretation. After the implementation of the silent reading strategy through Medium, the mean post-test score increased to 84.03, showing an average improvement of more than 17 points. This substantial gain signifies that the students became more capable of understanding texts in English, including identifying main ideas, interpreting meaning in context, and making logical inferences.

The paired sample correlation result of 0.339 with a significance level of 0.046 indicates that there was a moderate but meaningful relationship between students' pre-test and post-test performances. This finding suggests that improvement occurred across all levels of ability. Even students who initially had lower comprehension levels showed clear progress, which demonstrates the inclusivity and adaptability of the silent reading method. It provided an environment where all learners could develop according to their individual pace and reading habits.

Furthermore, the t-test results, which revealed a significance value below 0.05, confirmed that the improvement between the pre-test and post-test scores was statistically significant. This means the difference was not the result of random variation or testing bias but rather the outcome of the learning intervention. The confidence interval, ranging from 14.866 to 19.763, reinforces the reliability of this finding, indicating that the improvement is consistent and can be expected to occur in similar contexts.

The Medium application provides an engaging digital environment that supports students' reading development through authentic English materials such as articles, essays, and narratives. By offering a wide range of topics, it allows students to select readings based on their interests, which enhances motivation and sustains engagement—two essential factors for improving comprehension. Exposure to authentic texts helps learners expand their vocabulary, understand grammar in context, and relate language to real-life use. Moreover, integrating Medium into the learning process aligns with current educational practices that emphasize digital literacy. As digital natives, students respond positively to its accessible and user-friendly design, which promotes independent learning and consistent reading habits both inside and outside the classroom.

From a theoretical perspective, these findings correspond with extensive reading and constructivist learning theories. Extensive reading theory asserts that language proficiency and comprehension develop naturally through sustained exposure to meaningful and engaging texts, while constructivist theory emphasizes the learner's active role in constructing knowledge through experience. The silent reading method using Medium supports both principles by encouraging students to read widely and independently, allowing them to discover meaning on their own rather than depending solely on teacher guidance. In line with previous studies, the results show that digital reading environments foster deeper engagement and better comprehension outcomes by stimulating intrinsic motivation through accessible and relevant materials.

Therefore, based on both statistical and theoretical evidence, the null hypothesis (H_0)—stating that silent reading on Medium has no significant effect—can be rejected, and the alternative hypothesis (H_1)—stating that it does have a significant effect—can be accepted. In conclusion, the silent reading method using Medium has proven effective in improving students' English reading comprehension both quantitatively and qualitatively. It not only strengthens key reading skills such as vocabulary development, inference-making, and text interpretation but also cultivates motivation, independence, and a positive attitude toward reading. Consequently, integrating digital

platforms like Medium into English instruction represents an innovative and practical strategy that supports both academic achievement and lifelong reading habits among students.

5. CONCLUSIONS AND SUGGESTION

Conclusions

This research aimed to examine whether the use of silent reading through the Medium application could improve students' reading comprehension skills. Throughout the study, students were guided to read English texts silently by using the Medium app during the learning sessions. Their reading comprehension was then measured through a pre-test and a post-test to identify changes in performance before and after the treatment.

The results showed a clear improvement in students' reading comprehension. The average score of the pre-test was 66.71, which indicates that students' initial understanding of English texts was still at a developing level. Many of them faced challenges in identifying the main ideas, drawing conclusions, and interpreting vocabulary in context. After the silent reading activities with the Medium app, the average post-test score increased to 84.03, showing a gain of 17.32 points. This increase reflects better understanding of texts, improved vocabulary recognition, and stronger ability to process information independently.

The statistical test (paired sample t-test) also confirmed that the improvement was significant. The significance value was below 0.05, meaning the gains did not occur by chance. This shows that silent reading supported by Medium helped students read more attentively, understand texts more deeply, and build more effective reading habits.

Based on these findings, it can be concluded that silent reading using the Medium application has a positive and significant effect on students' reading comprehension. Therefore, the alternative hypothesis (H1) is accepted, while the null hypothesis (H0) is rejected.

Suggestions

Based on the findings of the research, there are some suggestions the researcher would like to suggest related to the result, the researcher provide the following suggestions.

Theoretically

The findings of this research add to the understanding that reading comprehension can be strengthened through independent reading supported by digital media. The results also align with the idea that students learn more effectively when they are given the opportunity to process

information at their own pace and through materials that interest them. Future studies may explore how different types of digital reading platforms, text genres, or reading durations influence students' comprehension abilities.

Practical

For English Teacher

Teachers are encouraged to integrate silent reading into classroom activities and to consider using digital reading platforms such as Medium. Teachers may select reading materials that match students' language levels and interests to keep them motivated. It is also recommended to provide short follow-up discussions or reflections after the silent reading session so students can share ideas, clarify misunderstandings, and strengthen comprehension.

For Students

Students are encouraged to make silent reading a regular habit, both during and outside of class. Reading through Medium gives access to various topics and writing styles that can help improve vocabulary and comprehension naturally. Students should also take notes while reading such as marking unfamiliar words or summarizing key points to help deepen understanding and support long-term learning.

For Other Researcher

Future researchers can expand this study by involving more schools or grade levels to see whether similar results appear in different contexts. Further research may also compare silent reading using digital media with other reading methods, such as guided reading or reading aloud, to identify which approach is most effective for different types of learners. Additionally, future studies could examine students' motivation and engagement to understand how digital reading influences students' interest in reading.

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