Experiment on The Influence of Two Different Reading Styles (Silent and Oral) on Comprehension Outcomes

ABSTRACT

This study examines the effects of silent reading and oral reading styles on the comprehension outcomes of college students. Participants of the study were students (N= 40), aged 18-25 years were randomly selected and assigned to either a silent reading or an oral reading group using quota sampling. Both groups read the same material under controlled conditions, followed by a 10-item Reading Comprehension Test (RCT). Environmental distractions, time periods, and participant alternative were controlled to ensure equality. Results were analyzed using an independent sample t-test to compare outcomes between the two reading styles. The finding indicates no significant difference between silent reading (M= 8.20, SD= 1.54) and oral reading (M= 8.45, SD= 1.28) in comprehension outcomes, t(37) = -0.596, p= 0.555, d= 0.191. The effect size, measured by Cohen's d, suggests a small influence of reading styles. Additionally, the Shapiro - Wilk test (W= 0.929, p= 0.017) revealed a violation of normality, indicating the data were not normally distributed. This findings suggest that silent and oral reading methods are equally effective for improving comprehension and can be strategically utilized in educational settings.

Keywords: Silent Reading, Oral Reading, Comprehension Outcomes, College Students

INTRODUCTION

In this new era, reading comprehension is crucial in modern society, it is an important tool in acquiring knowledge and information (Shohamy,2020). There are different ways to comprehend texts, the most common styles are silent and oral reading. Silent reading is the act of reading without vocalizing words, this method involves focus on engaging deeper into the material. It promotes mental imagery rather than vocalizing intonations and pronunciations (Schimmel & Ness,2017). Additionally, silent reading style nurture a substantial terrain that enhances both imagination and

comprehension (Cremin et, al.2022). On the other hand, oral reading is the ability to read the text material quickly using vocalizing words with accuracy, expression and phrasing. This skill is important for readers to decode words properly and transmit the meaning efficiently that leads to a successful reading comprehension (Rupley et, al.2020).

According to the study of Moiinvaziri (2024), from Nakh Institute of Education, Edmonton, Canada, it was found that oral reading is more effective than silent reading because of these two major reasons. First, vocalizing the words while reading needs to be read correctly and properly. Second, this reading technique prevents readers to only scan/skim reading materials and skip words, allowing them to comprehensively understand its content. However, in another study from Florida State University Libraries, silent reading is the main mode of reading for effective readers, and effective readers typically read efficiently in silent rather than silent reading. It includes more vocalizing words, intonation and monitoring, that exerts more time understanding the content of the material. Moreover, in the beginning children use oral that shows better comprehension, reader in higher level (3rd and 5th) grade show no difference between the two styles, and expert (adult) readers shows good comprehension in using silent reading (Kim et, al.2019)

The Philippines is one of many countries that uses the English language as one of its official languages, its being considered as a universal language. It is very important that as early as childhood, individuals are equipped with fundamental skills in constructing and analyzing English texts and context. But because of learning pacing of multiple factors such as accessibility of resources, and the variety of learning pacing of individuals; there is a gap in the learning process that would allow individuals to comprehend efficiently. A study was conducted, in which 75 Grade 2 students from private schools all over the Philippines undergone a classroom - based, casual - comparative design analysis that focuses on the effects of two different reading styles, namely; oral reading and silent reading; where participants are put into a weekly learning program called the SRA Reading Laboratory. The research suggested that teachers should focus on engaging in reading techniques similar to the students' preference to help students practice their comprehension skills (Mendoza & Ortega Dela Cruz, 2024).

One of the most important goals of formal education is to produce learners that are able to understand and comprehend texts when reading, for them to acquire knowledge. However, reading comprehension is not easy for some demographic, which creates a gap in teaching the necessary skills to comprehend efficiently. A study in Zamboanga City by researchers Minoza & Montero (2019), tested if there is a significant difference between using silent and oral reading techniques in assessing the comprehension levels among male and female participants are outperforming male participants, which suggests that the level of comprehension of individuals could be affected by the demo-graphical factors, such as gender.

Existing research has primarily looked at silent and oral reading individually, with no direct comparisons of their impacts on college students'

understanding. This error reveals a fundamental gap in our understanding of how these reading habits influence comprehension outcomes, especially across academic contexts, prior knowledge, and text kinds. Individual variations, such as learning styles, have also received less attention, which may have an impact on how efficiently students engage with various reading methods. For the auditory learners may excel in vocal reading, whereas visual learners may benefit from silent reading. This study aims to close these gaps be examining the different effects of silent and oral reading on college students' comprehension, which is essential for academic performance. Such insights might help instructor alter their teaching practices and contribute to the larger discussion of effective multi-modal reading strategies that improve comprehension, retention, and learning, particularly in diverse settings.

Understanding how various reading styles affect comprehension is critical, given the complex text that college students face and growing requirements for good reading skills in higher education. Silent reading is widely regarded as the most effective self-study strategy. However, oral reading has been found to increase engagement and active recall, especially in group situations. Examining the differences between these methods indicates the best reading strategies for different learning situations. Cognitive and behavioral results vary depending on the reading style used. While silent reading can increase auditory processing and memory through repetition, oral reading appears to activate other brain pathways, potentially improving comprehension. As online learning platforms and teaching methods become more prevalent, it is critical to identify which reading style is most effective for general material delivery.

The main objective of this is to identify the different effects of silent reading and oral reading on the comprehension outcomes of students. The researchers aim to examine how these two distinct reading methods influence comprehension and assess the significant differences in their effect. To ensure the reliability and validity of the result, an English Proficiency Test was managed to a group of college students to assess their comprehension skills. Only those who get the average score were chosen to participate in the experiment, ensuring a consistent foundation for evaluating the effects of reading styles. The study focuses on utilizing structured experimental approach, which we use quota sampling where the participants prefer the silent reading or oral reading styles. Both groups are assigned to read the same story under controlled condition and subsequently complete the Reading Comprehension Test (RCT). This allows for a reliable assessment of their comprehension levels. By examining the different effects of these reading styles, this study aims to provide valuable observation in which method is more effective in enhancing students' understanding. The results are expected to contribute to the development of more targeted teaching method can enhance their reading comprehension skills and guide them for educational practices.

Research Objectives:

This research experiment aimed to identify the different effects of silent reading and oral reading to the comprehension outcomes of college students. Specially, it seeks to:

1. To determine how silent reading and oral reading impact college students.

2. To examine the influence of reading comprehension results among college students.

3. To explore the significant connection between silent reading, oral reading, and the comprehension outcomes achieved.

METHODS

3.1 Participants

The participants of this study were college students (N=40) aged 18-25 years old, they were selected based on their performance in an English Proficiency Test, including those students who got the average score (15 to 20) included to ensure consistent language proficiency. Students were randomly assigned into two experimental groups the Silent Reading Group, consisting of 20 participants (3 females, 17 males) and the Oral Reading Group consisting of 20 participants (12 female, 8 males).

3.2 Instrument

The material used in this study included the English Proficiency Test and the Reading Comprehension Test (RTC). The English Proficiency Test was used during the participant selection to assess the students' baseline reading language skills. Only students who got the average scores were included in the experiment to ensure a consistent level of proficiency across participants. Participants first completed the English Proficiency Test to determine their ability. Afterwards, they were instructed to read a short story based on their assigned group. The Silent Reading Group read the short story silently, while the Oral Reading Group read the same story aloud, both under controlled conditions. Lastly, the participants answered the RCT questionnaire, The main instrument for evaluating comprehension outcomes was the RTC, a 20-item questionnaire specifically designed to evaluate the participant's and corresponding questionnaires that were consistent for both the silent and oral reading groups, ensuring constant content across experimental conditions. The test was conducted over a fixed duration of 30 minutes for all participants to maintain.

3.3 Procedure & Design

The pre - intervention setup setting will be composed, peaceful and disturbance - free with comfortable chairs. The participants will be properly informed about the purpose of the study and the objectives that the researchers are trying to determine through the experiment. In Experimental Group 1 (Silent Reading), the session began with a brief introduction from the facilitator, explaining the silent reading method and outlining the experimental procedure. Participants then received reading materials with instructions on using silent reading to comprehend the content. Following the reading period, participants completed a Reading Comprehension Test (RCT) to assess their

comprehension levels. Finally, facilitators collected the completed RCT for evaluation and acknowledged participant involvement. Post-intervention, the facilitators checked and scored all completed assessment papers. In Experimental Group 2 (Oral Reading), the session started with a brief introduction form the facilitator, explaining the oral reading method and outlining the experimental procedure. Participants received reading materials with instructions on using oral reading to comprehend the content. After the reading period, participants completed Reading Comprehension Test (RCT) to assess their comprehension. Facilitators then collected the completed quizzes for evaluation and acknowledged participant participation. Post-intervention, the facilitators checked and scored all completed assessment papers. Following the experimental sessions, participants immediately completed a Reading Comprehension Test to measure any changes in comprehension outcomes. After all, groups completed the experiment, a debriefing session explained the study's goal and highlighted the significant influence of silent versus oral reading methods on college students' comprehension.

The research design used by the researchers is an independent sample t-test to analyze the difference in comprehension outcomes between college students using silent reading vs. Oral reading styles. This independent sample t-test design allowed for observation and quantification of relevant variables, enabling the analysis of pattern and relationships with data. The independent sample t-test approach aimed to elucidate factors of interest and determine relationships between variables without manipulating them or assuming causality. The primary objectives was to comprehensively describe the relationship between reading styles and comprehension, focusing on the normality of the data distribution. For data analysis, the research used between-group analysis the independent t-test will be used to compare the difference in the effects of using silent and oral reading methods in determining if it has a significant effect on the comprehension outcomes of college students.

3.4 Ethical Considerations

Informed Consent all participants will be presented with an informed consent form. This document will clearly outline the purpose and procedures of the study, including potential risks or discomfort associated with participation. Participants will be required to read and understand the information presented in the consent form and provide their written consent before proceeding with the assessment. Confidentiality all information provided will be treated with the utmost confidentiality. No personal identifiable information will be collected or disclosed at any time. Your anonymity is guaranteed throughout the entire process. Voluntary Participation in this experimental assessment is entirely voluntary. Participants have the absolute right to withdraw from the study at any time without incurring any penalties or fees. This decision can be made without providing any reason, and it will not affect their current or future relationship with the University of Mindanao Digos College or any other academic or professional affiliations.

RESULT

As the result from the Independent t-test signified, that the two reading style (silent and oral reading) has no significant difference affecting the comprehension outcome of college students. In Table 1. shows the result from Independent t-test and measured by Cohen's d, suggested that there is a small effect to the comprehension outcomes influenced by the two reading styles. Also, in Table 2. shows the result from normality test is violated indicated, that there is no proper distribution of the data analysis gathered in the experiment. Table 3. shows the descriptive statistics of the study.

Table 1.
Independent Samples T- Test

		Statistics	df	p	Mean difference	SE difference			Effect Size
SCORE	**Student's t**	-0.596	37.0	0.555	-0.274	0.459	Cohen's d	0.191
	Welch's t	-0.599	36.5	0.553	-0.274	0.457	Cohen's d	0.191

Note. Ha μ SILENT ≠ μ ORAL

Interpretation:
An independent-sample t-test was conducted to compare the comprehension outcomes after examining silent reading and oral reading styles. The outcome stipulated a statistical that there is no significant difference in comprehension outcomes between the two reading styles, t (38) = 0.558, p= 0.580, d= 0.17. Participants tested to silent reading (M = 8.20, SD = 1.54) compared to those participants tested to oral reading (M = 8.45, SD= 1.28). The effect size, as measured by Cohen's d, suggested a small effect of reading style on comprehension outcomes. Since the p-value have the same value and was higher than .05, the null hypothesis, which stated that there is no significant difference in using silent reading and oral reading to the comprehension outcomes, was accepted. These findings suggested that there is no significant difference between silent reading and oral reading to the comprehension outcomes of college students.

Table 2.
Normality Test (Shapiro- Wilk)

	W	p
SCORE	0.929	0.017

Note. A low p-value suggests a violation of the assumption of normality

Interpretation:
A Shapiro – Wilk test result for the comprehension outcome score shows W= 0.929, p= 0.017. The p-value (0.017) is less than 0.05 the

assumption of normality is violated. The data does not appear to be normality distributed.

Table 3.
Group Descriptives

	Group	N	Mean	Median	SD	SE
SCORE	**SILENT**	20	8.20	8.50	1.54	0.345
	ORAL	20	8.47	9.00	1.31	0.300

Interpretation:

Descriptive statistic showed that the mean of reading comprehension with the silent reading was M=2.80(SD= 1.54, SE= 0.345), while the mean of reading comprehension with the oral reading was M= 8.45(SD=1.28, SE=0.285). Each condition involved N=20 participants.
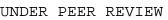
DISCUSSION

This research study demonstrates definite evidence highlighting the necessity of analyzing the issue, as it remains a crucial challenge in today's time. The first test results (It is used as a screening test for English Proficiency) that the participants must pass the average score needed, to determine that the participants are eligible to take the main test of the experiment. These data result describes whether the participants have equal comprehension in the English Proficiency Test. After the screening test, the main test is a reading material titled "Amber Prepares For School" (used to determine the reading comprehension of the participants influenced by the two reading styles "silent and oral") the result of the experiment determines that there is no significant difference between silent and oral reading styles affecting the comprehension outcomes of college students.

According to the study of Schimmel & Ness (2020), the comprehension skills of a student is connected to the level of their structural knowledge and observation that illustrates the content of the text is crucial. However, mostly of the readers lack imperative knowledge understanding the text structure in order to comprehend the content of the text's credibility. The researchers also stated that the influence of using either silent and oral reading styles has remained debatable and unclear on which of the two reading styles affects the reading comprehension of students. In which resulted in their study that there is no significant difference between oral and silent reading conditions impacting the comprehension level of the students.

CONCLUSION

In conclusion this study investigated the effectiveness of silent reading and oral reading on the comprehension outcomes of college students. The primary objectives were to ascertain whether one reading styles significantly outperformed the other in terms of comprehension. The results of the study reveal that there is no significant difference between the comprehension scores of students who engaged in silent reading and those who engaged in oral reading. These findings suggest that both silent reading and oral reading styles can be effective in facilitating comprehension among college students. While the study did not find a significant advantage for either method, individual learning preferences and reading material may influence the effectiveness of each approach. Further research could explore factors such as reading difficulty, students learning styles, and the specific content being read to gain a deeper understanding of the undercurrent between silent reading and oral reading on the comprehension outcome of college students.

REFERENCE:

Cremin T., Hendry, H., Leon, L. R., & Kucirkova, N. (Eds). (2022). Reading Teachers: Nurturing reading for pleasure. Taylor & Francis.

Kim, Y. S. G., Petscher, Y., & Vorstius, C. (2019). Unpacking eye movement during oral and silent reading and their relations to reading proficiency in beginning readers. Contemporary Educational Psychology, 58,102-120.

Mendoza, K. M. M., & Cruz, R. A. O. D. (2024). Silent and oral reading methods on improving English reading comprehension among generation alpha pupils. Journal of Childhood, Education & Society, 5(1), 120-133.

Minoza, M. V., & Montero, M. A. (2019). Reading Comprehension Level among Intermediate Leaners. Online Submission, 31(3), 561-568.

Moiinvaziri, M. (2024). Reading Comprehension Performance Among Impulsive and Reflective English Learners: Examining the Influence of Three Reading Methods. Journal of Language and Education, 10 (2(38)), 95-107.

Rupley, W. H., Nichols, W. D., Rasinski, T. V., & Paige, D. (2020). Fluency: Deep roots in reading instruction. Education Sciences, 10(6), 155.

Schimmel, N. L. (2020). The effects of oral and silent reading on reading comprehension. Fordham University.

Shohamy, E. (2020). The power of tests: A critical perspective on the uses of language tests. Routledge.