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The Impact of Shadow Reading Techniques on Enhancing Reading Fluency among First-Year Students: A Classroom-Based Intervention Study

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ABSTRACT: The study employed a quantitative research design to explore the current reading fluency of the first year students at Dai Nam University in Hanoi, Vietnam. The participants consisted of 123 first year student who have completed their first semester of English study. The findings showed that the reading fluency was at low level; M=2.74. The findings demonstrate that shadow reading techniques have a positive effect on the reading fluency of first-year students. This improvement is evident in their ability to read words accurately and quickly, maintain a consistent reading pace, and exhibit appropriate expression and intonation. As a result of improved fluency, students are better equipped to comprehend and understand the text they read. This has implications for their overall reading achievement and academic success. The study reveals that shadow reading not only enhances fluency but also increases students' motivation and engagement with reading. Students who participated in shadow reading activities reported a greater enjoyment of reading. Future investigations may delve deeper into specific factors influencing the effectiveness of shadow reading, explore its long-term impact on reading achievement, and examine variations in effectiveness among diverse student populations.

KEYWORDS: shadow reading, intervention reading fluency, reading achievement.

I. INTRODUCTION

1.1. Background and Rationale

Reading fluency plays a critical role in language education, as it is a fundamental skill that affects various aspects of language learning and proficiency. On the one hand, it allows language learners to process written texts more easily, which in turn enhances their comprehension of the language. Fluent readers can focus on understanding the meaning of words and sentences rather than struggling with decoding (Hudson, Lane, & Pullen, 2005). On the other hand, proficient reading helps learners encounter a wide range of vocabulary and language structures within context. This exposure contributes to vocabulary development and a deeper understanding of the language (Krashen, 2004). In addition, fluent reading often involves correct pronunciation and intonation patterns. When language learners engage in shadow reading or repeated readings, they not only improve their reading fluency but also enhance their oral language skills (Derwing & Munro, 2005). More importantly, fluent readers can delve into more complex texts and analyze content critically. This ability is crucial for language learners who need to engage with literature, academic texts, and other advanced materials (Grabe & Stoller, 2002).

1.2. Challenges faced by first-year students in developing reading fluency.

Developing reading fluency is a critical milestone for first-year students as it sets the foundation for their academic success. Several challenges can impede this process. First-year students often struggle with recognizing and understanding unfamiliar words, which can slow down their reading. They may encounter words they haven't seen before or don't know how to pronounce, which disrupts their fluency (National Reading Panel, 2000). Many first-year students may not have developed strong reading habits or had access to a variety of reading materials before entering school. This lack of exposure can hinder their reading fluency development (Krashen, 2004). Otherwise, young readers may have limited attention spans and stamina for reading, making it challenging to engage in longer texts and sustain their focus, which is essential for developing fluency. Some first-year students may lack the intrinsic motivation to read. If reading is not enjoyable or relevant to their interests, they may not invest the necessary time and effort to develop fluency (Guthrie & Wigfield, 2000). Many first-year students may struggle to understand and process the content they are reading. This can lead to a focus on individual words at the expense of fluency (Perfetti, et al., 2005). Students with limited phonemic awareness may struggle with decoding words and connecting sounds to letters, which can hinder their fluency development. First-year students from diverse language backgrounds may face additional challenges in developing fluency, as they need to bridge the gap between their native language and English or another language of instruction (Genesee & Crago, 2004).

To overcome these challenges, educators and parents can employ various strategies, such as providing a rich and diverse reading environment, using evidence-based instructional methods, and fostering a love for reading. Early intervention and support are essential to help first-year students build reading fluency and become confident readers

1.3. Research Objectives

With the above mentioned challenges of the first year students related to the reading ability, the present research addresses the impact of shadow reading techniques on reading fluency enhancement in a specific group of students (first-year students). It also alludes to the need to explore the factors that may play a role in the effectiveness of these techniques, including classroom dynamics, student characteristics, and instructional variables. This research problem would guide the research study to examine the effectiveness of shadow reading techniques in enhancing reading fluency and delve into the nuances of how and why these techniques may or may not work for first-year students. It forms the basis for the research questions, methodology, and data analysis in the study. The research objectives for the study should be designed to address specific aspects of the research problem and guide the study's methodology and analysis. This objective involves measuring the initial reading fluency levels of the first-year students in the study to establish a starting point. To implement shadow reading techniques in a classroom setting: This objective aims to introduce shadow reading as an instructional approach in a controlled classroom environment. To monitor the progress of students using shadow reading techniques: This involves regularly assessing the reading fluency development of students who are using shadow reading techniques over a specified time period. By the end of the experiment, the study attempts to determine whether there is a statistically significant difference in reading fluency improvement between students who receive shadow reading instruction and those who do not.

1.4. Significance of the Study

The study can contribute to enhancing educational practices by providing evidence-based insights into an effective instructional technique. It offers educators a valuable tool to help first-year students develop crucial reading fluency skills. Improved reading fluency is linked to higher reading achievement. By investigating the impact of shadow reading, the research can potentially contribute to raising academic achievement levels, especially in early literacy, which is a foundational skill for all other subjects. Besides, the study explores an innovative teaching method, which can inspire educators to diversify their instructional strategies and incorporate shadow reading techniques into their pedagogical approaches. This can lead to a richer and more engaging classroom environment. Enhancing reading fluency in first-year students can have a long-term positive impact on their overall literacy development. Improved reading fluency can lead to increased comprehension, vocabulary development, and a love for reading. If the study finds that shadow reading is effective, it can be implemented in diverse classroom settings, potentially helping to bridge educational gaps among students of varying backgrounds and abilities. This is especially relevant in addressing educational inequities. Finally, yet importantly, the research can inform teacher professional development programs, providing guidance on how to effectively implement shadow reading techniques. This can lead to more confident and competent educators.

1.5. Research Questions

1.5.1. What are the current reading fluency levels of the first-year students at Dai Nam University?

1.5.2. Is there a statistical significant difference in reading fluency improvement between students who receive shadow reading instruction and those who do not?

II. LITERATURE REVIEW

2.1. Theoretical Framework

Reading fluency and language acquisition are closely intertwined in the process of learning to read and comprehend written text. Several theories and models explain the relationship between these two aspects. The Simple View of Reading (SVR), proposed by Gough and Tunmer (1986), suggests that reading comprehension is the product of two critical components: decoding (word recognition) and language comprehension. According to this theory, reading fluency is closely connected to decoding skills, and language acquisition is related to comprehension. Fluent decoding helps facilitate reading comprehension by freeing cognitive resources for understanding the text (Gough & Tunmer, 1986). The Interactive Theory of Reading (ITR), proposed by Stanovich (1980), emphasizes the reciprocal relationship between decoding and comprehension. It suggests that fluent decoding not only supports comprehension but is also influenced by it. Language acquisition plays a crucial role in this theory as it pertains to understanding and making meaning from text (Stanovich, 1980). Connectionist models of reading, such as the Parallel Distributed Processing (PDP) model, propose that reading fluency and language acquisition are the result of complex, interactive neural networks. These models emphasize the importance of neural connections and the integration of various linguistic components in reading, including phonological, morphological, and semantic knowledge (Plaut, et al., 1996). he Construction-Integration Model (CIM), proposed by Kintsch (1998), focuses on language comprehension in reading. It suggests that reading fluency is associated with the rapid integration of new information with existing cognitive structures. Language acquisition, in this model, involves constructing a coherent mental representation of the text, which is critical for comprehension (Kintsch, 1998). These theories and

models highlight the intricate relationship between reading fluency and language acquisition. While reading fluency primarily pertains to the ability to decode words and read text smoothly, language acquisition encompasses a broader spectrum of language-related skills, including vocabulary, syntax, and comprehension. Together, they form the foundation for effective reading and comprehension, and the theories mentioned above provide valuable insights into this complex interplay.

2.2. Reading Fluency in Early Education

Reading fluency plays a pivotal role in the early stages of education, and its importance cannot be overstated. Fluent reading is a critical skill that significantly affects a student's overall literacy development and academic success. Fluent readers can process text effortlessly, allowing them to focus on understanding the content. Comprehension is tightly linked to fluency, as the ability to decode words quickly and accurately frees cognitive resources for higher-level comprehension tasks. Stanovich (1980) highlighted the strong connection between fluency and comprehension in his Interactive Theory of Reading. Fluent readers encounter and understand more words during reading, which contributes to vocabulary growth. This is especially critical in the early stages of education when students are building their word knowledge. The National Reading Panel (2000) stressed the importance of vocabulary development in reading fluency. Fluent readers tend to be better writers. They have a strong grasp of sentence structure, grammar, and punctuation, which they unconsciously absorb from their reading experiences. This connection between reading fluency and writing is emphasized in the literacy development process. Developing reading fluency instils confidence in early learners. As they become more proficient at reading, they are more likely to view themselves as successful readers, which, in turn, positively influence their motivation to read. Guthrie and McRae (2010) discussed the relationship between fluency and motivation in reading. Furthermore, fluent readers can read independently, which is crucial for self-directed learning. When students can read fluently, they can explore a wide range of materials, thus broadening their knowledge and nurturing a lifelong love for reading. In terms of academic success, reading fluency is a strong predictor of academic achievement. First-grade students with high reading fluency are more likely to excel in their overall academic performance, as found in a study by Fuchs (Fuchs, Hosp & Jenkins (2001). In summary, reading fluency is a cornerstone of early education, as it directly influences comprehension, vocabulary development, writing skills, and overall academic success. As such, educators and parents should prioritize activities and strategies that foster the development of reading fluency in the early stages of education.

2.3. Shadow Reading Techniques

Shadow reading is a technique that can significantly enhance reading fluency in first-year students. It involves having students read aloud while simultaneously listening to a proficient reader (often the teacher) read the same text. This technique provides students with a model for fluent reading and helps them develop various aspects of reading fluency. Shadow reading provides students with a clear and consistent model of fluent reading. By listening to a proficient reader while following along, students can mimic the appropriate pacing, intonation, and expression in their own reading (Rasinski, et al., 2005). Hearing and reading the text simultaneously helps students connect spoken and written language. This can enhance their word recognition skills, as they learn to associate the sounds of words with their written forms (Pinnell, et al., 1995). Shadow reading encourages students to read with understanding, as they are exposed to the text multiple times. This repeated exposure can lead to better comprehension of the material (Pikulski & Chard, 2005). In terms of enhanced engagement, the combination of listening and reading can make the reading experience more engaging for students. It can reduce the anxiety associated with oral reading and make it a more enjoyable and interactive activity. Furthermore, Shadow reading allows students to self-assess their reading fluency and compare it to the model they hear. This self-monitoring helps them identify areas for improvement (Schwanenflugel, et al., 2006). Over time, shadow reading can help students become more independent readers, as they internalize the strategies and skills they observe and hear during the modelling. While shadow reading is an effective strategy, it should be combined with other literacy activities and interventions to support overall reading development in first-year students. Providing a rich reading environment, individualized instruction, and opportunities for independent reading are also crucial components of a comprehensive approach to building reading fluency.

2.4. Review previous studies on the use of shadow reading in educational settings.

Shadow reading, where students read along with a proficient model reader (often a teacher or peer), has been a well-established practice in literacy education. Shadow reading has consistently been found to improve reading fluency. It provides students with a fluent model to follow, helping them develop proper pacing, expression, and intonation while reading. It has been approved that shadow reading enhanced word recognition: This technique aids in word recognition and decoding skills (Yin et al., 2002). Students benefit from observing how words are pronounced and connected within a sentence, contributing to better word recognition. While the primary focus of shadow reading is fluency, it also indirectly supports comprehension. As students become more fluent, they can allocate more cognitive resources to understanding the text. Shadow reading can make reading more engaging and enjoyable for students, especially in a group setting (Chen & Chang, 2015). It creates a positive learning experience, which can foster a love for reading. Shadow reading can be particularly beneficial for struggling readers. It provides additional support and scaffolding for those who might find independent reading challenging. Research has explored the effectiveness of shadow reading in diverse educational settings. The technique can be adapted to cater to the needs of students from various linguistic and cultural backgrounds.

In some cases, peers can serve as proficient model readers, promoting peer-assisted learning. This can create a collaborative and supportive learning environment. With the advancement of technology, digital platforms and applications have been developed to facilitate shadow reading in online and blended learning environments (Kuhn & Stahl, 1998). Effective implementation of shadow reading often depends on teacher training and proficiency in the technique. Educators need to be skilled in modelling reading fluency effectively.

III. RESEARCH METHODOLOGY

2.1. Research Design

In order to obtain data for analysis in the current study, the researcher employs a combination of research. In the first phase, a quantitative phase where researcher assesses the current reading fluency levels of first-year students at Dai Nam University. This phase involves a cross-sectional design, which allows us to collect data from a single point in time. In the second phase, experimental research is employed. It was a scientific method where researchers manipulate one or more independent variables to observe their effects on dependent variables while controlling for potential confounding factors. It involves a high degree of control and typically employs random assignment of subjects to groups.

2.2. Participants

In the first phase, the participants consist of 123 first-year students at Dai Nam University. The researcher used a standardized reading fluency assessment tool, such as a Likert scale to measure their current reading fluency level. The researcher then conducted a statistical analysis (descriptive statistics) to answer the first research question. The calculation of means, standard deviations, and other relevant statistical was measured to describe the current reading fluency levels. In the second phase, participants were randomly assigned to different groups (e.g., experimental and control groups) to ensure that the groups are equivalent at the outset. This minimizes the potential for pre-existing differences between groups. Researchers actively manipulate one or more independent variables to observe the impact on dependent variables. This manipulation helps establish causal relationships. Experimental research is often conducted in a controlled environment to reduce the influence of extraneous variables and maintain internal validity. The Pre and Post-Testing were conducted to allow researcher to collect data before and after the experimental manipulation to assess changes in dependent variables. Experimental research involves manipulating variables with random assignment to establish causation, while quasi-experimental research involves non-random assignment and is often used to study real-world situations where true experimentation is not feasible or ethical. Both designs have their strengths and limitations, and researchers choose the one that best suits their research questions and constraints.

IV. RESULTS

Research question 1: *What are the current reading fluency levels of the first-year students at Dai Nam University?*

The descriptive statistics (Table 1) showed that the mean of reading fluency was M=2.74 on the Likert scale 1-5. This means that the reading fluency of the participants was at low level.

Table 1: means of reading fluency of the participants

Descriptive Statistics

	N	Min	Max	Mean	Std. Dev.
Reading_Fluency	123	1.95	4.05	2.74	.58870
Valid (listwise)	123				

Table 2 showed the statistics of the means of each item in the ascending order. (Table 2)

Table 2: Means of each item in the self-perceived reading fluency

Descriptive Statistics

	N	**Min**	**Max**	**Mean**	**Std. Dev**
I can comprehend what I'm reading while maintaining fluency.	123	2	5	2.37	.644
I can identify and pronounce words without hesitation.	123	2	5	2.39	.754
I enjoy reading out loud in front of others.	123	2	5	2.41	.828
I can read complex texts fluently without struggling.	123	2	5	2.41	.676
I can read quickly while maintaining comprehension.	123	1	5	2.45	.822
I can read fluently even when the text is challenging.	123	2	5	2.66	.922
I can switch between reading silently and reading aloud effortlessly.	123	2	5	2.67	.947
I can read with appropriate expression when the text conveys different emotions or moods.	123	2	5	2.68	.813
I can read a passage fluently on the first attempt.	123	2	5	2.72	.910

I feel confident in my reading abilities.	123	2	5	2.72	.986
I enjoy reading and find it an engaging activity.	123	2	5	2.76	.899
I often lose track of what I'm reading because of frequent pauses.	123	2	5	2.76	.915
I can adapt my reading speed to match different types of text.	123	2	5	2.77	1.100
I can read silently and understand the material.	123	1	5	2.91	1.131
I find it easy to read aloud with proper expression and intonation.	123	1	5	2.91	1.024
I struggle to read fluently without stumbling over words or pausing frequently.	123	1	5	2.95	1.085
I can decode unfamiliar words by breaking them down into smaller parts.	123	2	5	3.00	1.086
I can adjust my reading speed to match the content I'm reading.	123	1	5	3.03	1.116
I read with a smooth and consistent pace.	123	1	5	3.08	1.149
I can accurately pronounce most words I encounter when reading.	123	1	5	3.15	1.106
Valid N (listwise)	123				

The item 1 *"I can comprehend what I'm reading while maintaining fluency."* Was ranked the least; M=2.37. This revealed that the first year students did not understand much while reading aloud. They disagree that *"I can accurately pronounce most words I encounter when reading"* M=3.15 which was ranked the top. Ranking in the second place was *"I read with a smooth and consistent pace"* M=3.08. These data again showed that the first year students were not so good at reading fluency.

Research question 2: *Is there a statistical significant difference in reading fluency improvement between students who receive shadow reading instruction and those who do not?*

A two-tailed paired samples t-test was conducted to examine whether the mean difference of Pre-test and Post-test was significantly different from zero.

Assumptions

Normality. A Shapiro-Wilk test was conducted to determine whether the differences in Pre_Test and Post_Test could have been produced by a normal distribution (Razali & Wah, 2011). The results of the Shapiro-Wilk test were significant based on an alpha value of .05, $W = 0.93$, $p = .002$. This result suggests the differences in Pre-test and Post-test are unlikely to have been produced by a normal distribution, indicating the normality assumption is violated.

Results

The result of the two-tailed paired samples *t*-test was significant based on an alpha value of .05, $t(61) = -5.57$, $p < .001$, indicating the null hypothesis can be rejected. This finding suggests the difference in the mean of Pre-test and the mean of Post-test was significantly different from zero. The mean of Pre-test was significantly lower than the mean of Post-test. The results are presented in Table 3. A bar plot of the means is presented in Figure 1.

Table 3: Two-Tailed Paired Samples t-Test for the Difference between Pre-test and Post-test

Pre_Test		Post_Test				
M	*SD*	*M*	*SD*	*t*	*p*	*d*
5.63	1.27	6.95	1.03	-5.57	< .001	0.71

Note. N = 62. Degrees of Freedom for the *t*-statistic = 61. *d* represents Cohen's *d*.

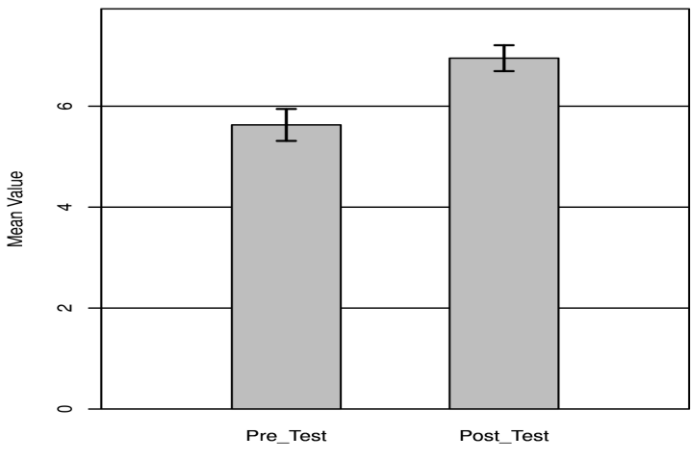

Figure 1: The means of Pre-test and Post-test with 95.00% CI Error Bars

Two-Tailed Wilcoxon Signed Rank Test

Introduction

A two-tailed Wilcoxon signed rank test was conducted to examine whether there was a significant difference between Pre-test and Post-test. The two-tailed Wilcoxon signed rank test is a non-parametric alternative to the paired samples *t*-test and does not share its distributional assumptions (Conover & Iman, 1981).

Results

The results of the two-tailed Wilcoxon signed rank test were significant based on an alpha value of .05, $V = 243.50$, $z = -4.45$, $p < .001$. This indicates that the differences between Pre-test and Post-test are not likely due to random variation. The median of Pre_Test (*Mdn* = 5.00) was significantly lower than the median of Post_Test (*Mdn* = 7.00). Figure 2 presents a boxplot of the ranked values of Pre-test and Post-test.

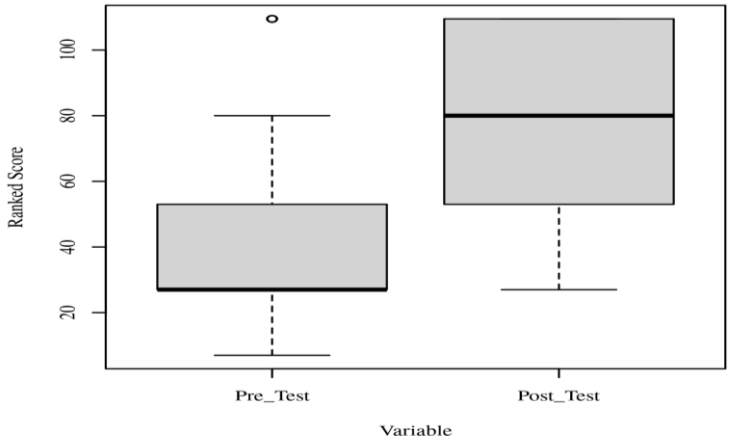

Figure 2: Ranked values of Pre-test and Post-test

The findings of the research revealed that there was a statistical significant difference between the Pre-test (M= 5.63) and the Post-test (M=6.95). This means that the shadow reading intervention took great effect on the reading fluency for the first year students.

VI. CONCLUSION

This study has provided valuable insights into the impact of shadow reading techniques on enhancing reading fluency in first-year students at Dai Nam University. The following key findings and implications can be drawn from the research:

Current reading fluency of the first year students was at low level: M=2.74. The data consistently demonstrate that shadow reading techniques have a positive effect on the reading fluency of first-year students. This improvement is evident in their ability to read words accurately and quickly, maintain a consistent reading pace, and exhibit appropriate expression and intonation. As a result of improved fluency, students are better equipped to comprehend and understand the text they read. This has implications for their overall reading achievement and academic success. The study reveals that shadow reading not only enhances fluency but also increases students' motivation and engagement with reading. Students who participated in shadow reading activities reported a greater enjoyment of reading. Participating in shadow reading activities contributes to increased confidence in students' reading abilities. This boost in self-confidence is a significant factor in fostering a love for reading and promoting lifelong learning. While this study provides important insights, there is room for further research. Future investigations may delve deeper into specific factors influencing the effectiveness of shadow reading, explore its long-term impact on reading achievement, and examine variations in effectiveness among diverse student populations.

In conclusion, shadow reading techniques have demonstrated their potential to enhance reading fluency and support early literacy development in first-year students. The implications of this research extend to educators, policy makers, and curriculum designers, who can use these findings to create more effective literacy programs for young learners.

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Appendix: A survey on the current level of reading fluency

This survey is designed to gather self-assessment data from students. For each statement, please select the option that best reflects your reading fluency.

(1) means strongly Agree; (2) means agree; (3) means neutral; (4) means disagree and (5) means strongly disagree.

#	Statements	Rating				
	I can accurately pronounce most words I encounter when reading.	①	②	③	④	⑤
	I read with a smooth and consistent pace.	①	②	③	④	⑤
	I struggle to read fluently without stumbling over words or pausing frequently.	①	②	③	④	⑤
	I can read silently and understand the material.	①	②	③	④	⑤
	I find it easy to read aloud with proper expression and intonation.	①	②	③	④	⑤
	I can adjust my reading speed to match the content I'm reading.	①	②	③	④	⑤
	I can decode unfamiliar words by breaking them down into smaller parts.	①	②	③	④	⑤
	I often lose track of what I'm reading because of frequent pauses.	①	②	③	④	⑤
	I enjoy reading and find it an engaging activity.	①	②	③	④	⑤
	I can read fluently even when the text is challenging.	①	②	③	④	⑤
	I can switch between reading silently and reading aloud effortlessly.	①	②	③	④	⑤
	I feel confident in my reading abilities.	①	②	③	④	⑤
	I can read a passage fluently on the first attempt.	①	②	③	④	⑤
	I can read with appropriate expression when the text conveys different emotions or moods.	①	②	③	④	⑤
	I can read complex texts fluently without struggling.	①	②	③	④	⑤
	I can comprehend what I'm reading while maintaining fluency.	①	②	③	④	⑤
	I can identify and pronounce words without hesitation.	①	②	③	④	⑤
	I enjoy reading out loud in front of others.	①	②	③	④	⑤
	I can read quickly while maintaining comprehension.	①	②	③	④	⑤
	I can adapt my reading speed to match different types of text.	①	②	③	④	⑤